

DIVISION 1 GENERAL REQUIREMENTS**SECTION 1-01 DEFINITIONS AND TERMS****1-01.1 GENERAL**

Standard acronyms, abbreviations, definitions, and symbols common to the fields of engineering and construction are used throughout the Contract without further explanation. Acronyms and definitions often used in the Contract can be found in Sections 1-01.2 and 1-01.3. Often used abbreviations are found in Standard Plan no. 002. Additional acronyms, definitions, and symbols may be found in the Project Manual or Drawings. Welding symbols are defined in the current edition of the American Welding Society Structural Welding Code.

When used in the Contract, the acronyms listed in Section 1-01.2(1) and terms defined in Section 1-01.3 (or pronouns used in place of acronyms and terms) have the indicated meanings unless the context implies otherwise.

Words in the plural include singular and vice versa.

Words of a particular gender include any gender.

1-01.2 ABBREVIATIONS**1-01.2(1) ASSOCIATIONS AND MISCELLANEOUS**

The following standard acronyms are used throughout the Bid Documents:

A2LA	American Association for Laboratory Accreditation
AAA	American Arbitration Association
AAN	American Association of Nurserymen
AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACIL	American Council of Independence Laboratories
AGA	American Gas Association
AGC	Associated General Contractors of America
AHERA	Asbestos Hazard Emergency Response
AI	Asphalt Institute
AIA	American Institute of Architects
AIHA	American Industrial Hygiene Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALSC	American Lumber Standards Committee
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute
APWA	American Public Works Association
ARA	American Railway Association
AREMA	American Railroad Engineering and Maintenance-of-Way Association
ARTBA	American Road and Transportation Builders Association
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASLA	American Society of Landscape Architects
ASME	American Society of Mechanical Engineers
ASNS	American Standard for Nursery Stock
ASNT	American Society for Non-Destructive Testing
ASSE	American Society of Sanitary Engineering
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
BR	Bridge Replacement and Redevelopment Program
CARB	California Air Resources Board
CBD	Central Business District
CBE	Combination Business Enterprise
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CLI	Chain Link Institute
CRAB	County Road Administration Board
CRSI	Concrete Reinforcing Steel Institute
CSI	Construction Specifications Institute
DBE	Disadvantaged Business Enterprise
DBRA	Davis-Bacon and Related Acts
DEA	Department of Executive Administration

DIPRA	Ductile Iron Pipe Research Association
DPD	Seattle Department of Planning and Development
EEI	Edison Electric Institute
EEO	Equal Employment Opportunity
EPA	Environmental Protection Agency
ESCBMP	Erosion and Sedimentation Control Best Management Practices
FEMA	Federal Emergency Management Agency
FWHA	Federal Highway Administration
FSS	Federal Specifications and Standards, General Services Administration
FTA	Federal Transit Administration
HPMA	Hardwood Plywood Manufacturers Association
HUD	United States Department of Housing and Urban Development
IAPMO	International Association of Plumbers and Mechanical Officials
ICEA	Insulated Cable Engineers Association
ICOR	Interagency Commission on Outdoor Recreation
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers' Association
ISA	International Society of Arboriculture
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation Systems
KCM	King County METRO
LPI	Lighting Protection Institute
MBE	Minority Business Enterprise
METROKC	King County Department of Transportation
MSDS	Material Safety Data Sheet
MTCA	Washington Model Toxics Control Act
MSHA	Mine Safety and Health Act
MUTCD	Manual on Uniform Traffic Control Devices
MWBE	Minority and Women Business Enterprise
NACE	National Association of Corrosion Engineers
NAPA	National Asphalt Pavement Association
NCMA	National Concrete Masonry Association
NCSPA	National Corrugated Steel Pipe Association
NEC	National Electrical Code
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturer's Association
NEPA	National Environmental Protection Act
NETA	International Electric Testing Association
NFPA	National Fire Protection Association
NFPA	National Forest Products Association
NHS	National Highway System
NPCA	National Precast Concrete Association
NRMCA	National Ready Mix Concrete Association
NRCA	National Roofing Contractors Association
NSF	National Sanitation Foundation
NTCIP	National Transportation Communication for ITS Protocol
NTPEP	National Transportation Product Evaluation Program
OMWBE	Office of Minority and Women's Business Enterprises
OSHA	Occupational Safety and Health Administration
PACP	Pipeline Assessment and Certification Program
PCA	Portland Cement Association
PCSD	Purchasing and Contracting Services Division
P/PCI	Precast/Prestressed Concrete Institute
PORT	Port of Seattle
PPI	Plastic Pipe Institute
PSCAA	Puget Sound Clean Air Agency
RCW	Revised Code of Washington
REA	Rural Electrification Association
RRP	Railway-Highway Grade Crossing Program
SCADA	Supervisory Control And Data Acquisition
SAC	Washington State Apprenticeship and Training Council
SAE	Society of Automotive Engineers
SCS	Soil Conservation Service
SCL	Seattle City Light
SDOT	Seattle Department of Transportation

SEPA	State Environmental Policy Act
SKCDPH	Seattle-King County Department of Public Health
SMC	Seattle Municipal Code
SPMA	Seattle Popular Monorail Authority
SPU	Seattle Public Utilities
SSPC	Steel Structures Painting Council
UL	Underwriters Laboratory
UMTA	Urban Mass Transit Administration
USACE	United States Army Corps of Engineers
USCGS	United States Coastal and Geodetic Survey
USDA	United States Department of Agriculture
USDOE	United States Department of Energy
WAC	Washington Administrative Code
WACA	Washington Aggregates and Concrete Association
WALP	Washington Association of Landscape Professionals
WAQTC	Western Alliance for Quality Transportation Construction
WBE	Women's Business Enterprise
WCLIB	West Coast Lumber Inspection Bureau
WISHA	Washington Industrial Safety and Health Administration
WMBE	Women and Minority Business Enterprise
WRI	Wire Reinforcement Institute
WSDOE	Washington State Department of Ecology
WSDOT	Washington State Department of Transportation
WSDSHS	Washington State Department of Social and Health Services
WSEM	Washington State Energy Management
WWPA	Western Wood Products Association

1-01.2(2) BID ITEMS OF WORK AND UNITS OF MEASUREMENT

Standard abbreviations are included on Standard Plan No. 002. Standard symbols are included on Standard Plan No. 003. When abbreviations are used in the Bid Form to denote Bid items of work and units of measurement, each abbreviated term shall have the meaning specified for it as noted in the subparagraph immediately above unless a Bid item measurement or payment description specifies another meaning.

1-01.3 DEFINITIONS

As used in this Contract, the terms listed below are defined as indicated. Unless the Contract specifically indicates otherwise, the definitions of electrical and electronic abbreviations, terms and phrases used in the Contract shall be those contained in the official edition of the IEEE Dictionary of Electrical and Electronic Terms.

Definitions for street designations and classifications can be found in the current edition of Seattle's Rights of Way improvements Manual. The ROWIM applies solely to street rights-of-way and does not apply to rights of way dedicated solely for utility purposes.

ADDENDUM

A written or graphic document issued to all Bidders prior to the Bid opening and identified as an Addendum, which modifies or clarifies the Bid Documents and becomes part of the Contract.

ADDITIVE

A supplemental unit of Work or group of Bid items, identified separately in the Bid, which may be Awarded at the discretion of the Owner in addition to the Base Bid.

ADVERTISEMENT FOR BIDS

A public notice published in the official newspaper, designated by The City of Seattle, and/or on the internet, soliciting Bids for the Work.

AFFIDAVIT

A written document in which the signer swears under oath before a notary public or someone authorized to take oaths that the statements in the document are true.

AFFIRMATIVE EFFORTS

Reasonable, good faith efforts to contact and employ women and minorities and to contact and Contract with Women and Minority Business Enterprises (WMBEs) as documented in the Outreach Plan form.

AGREEMENT FORM (CONTRACT FORM)

The Owner-provided form that requires the authorized signatures of the Contractor and the Owner to formally execute the Contract.

ALTERNATE

A unit of Work or group of Bid items, identified separately in the Bid, which permits a choice of different methods or Material of construction for performing the same Work.

ARCHITECT

An individual licensed and registered in the State of Washington to practice architecture.

ASSISTANT

The Engineer's authorized representative assigned to make detailed inspection of the Work.

AWARD

The formal decision of the Owner to accept the lowest responsive Bid of a responsible Bidder for the Work as evidenced by the issuance of the Award of Contract.

BASE BID

The summation of Bid item amounts (extensions) or the lump sum Bid in the Bid Form, excluding Additives, Alternates, Deductives and taxes.

BID

The written offer of a Bidder, executed pursuant to the Bid Documents, to perform the Work for a specific price. The terms "Bid" and "Bid Form" and like terms are synonymous.

BIDDER

An individual, partnership, firm, corporation, limited liability company or joint venture submitting a Bid.

BID DOCUMENTS

The component parts of the proposed Contract which may include the Advertisement for Bids, Bid Form, Agreement Form, Project Manual, Drawings, Addenda and any other documents incorporated into the Contract by reference.

BID FORM

The Bid and the Affidavit/Declaration included in the Bid Documents.

BID GUARANTY

Bid bond, cashier's check or certified check accompanying the Bid as a guarantee that the Bidder will enter into an agreement with the Owner for performance of the Work if the Bidder is Awarded the Contract.

CAPABILITY OR CAPABLE

A business that appears able to perform a Commercially Useful Function on the item of Work in question.

CHANGE ORDER

A written order issued by the Engineer to the Contractor authorizing a change to the Contract after execution of the Contract. A Change Order establishes the basis of payment and time adjustments, if any, for the Work affected by the change.

CERTIFIED ON-SITE-EROSION CONTROL LEAD (ESC Lead)

An employee of the Contractor certified by WSDOT/AGC as having completed the "Construction Site Erosion And Sediment Control Certification Program". Such certification shall remain in effect throughout the Contract term.

COMBINATION BUSINESS ENTERPRISE (CBE)

A business that has self-identified or has been certified by the Washington State Office of Minority and Women's Business Enterprises as a bona fide Combination Business Enterprise. A CBE is a business that is 50% owned and controlled by one or more minority men, and 50% owned and controlled by one or more non-minority women.

COMMERCIALLY USEFUL FUNCTION

The performance of real and actual services in the discharge of any contractual endeavor including managing and supervising the Work involved, negotiating price, determining quality and quantity, ordering, paying for and installing (if applicable) the material.

CONSTRUCTION OUTREACH PLAN

The Owner-provided form used by the Contractor to document Affirmative Efforts.

CONTRACT

The agreement between the Owner and the Contractor, which includes the signed Agreement Form, Bid Form, Contract provisions, Drawings, Standard Specifications, Standard Plans, Addenda, certifications, supplemental agreements, Change Orders and all other documents specifically incorporated by reference comprise the Contract.

CONTRACT BOND

The approved form of security, furnished by the Contractor and the Contractor's Surety, guaranteeing completion of the Work and payment to persons supplying labor and Materials in the prosecution of the Work. The Owner will provide the Contract Bond form to the Contractor.

CONTRACT FORM

See "Agreement Form."

CONTRACT PRICE

1. **Awarded Contract Price:** The summation of Bid item amounts or extensions or a lump sum for all items of Work, including applicable taxes, upon which the Award is made.
2. **Revised Contract Price:** The Awarded Contract Price, adjusted at any time after Award but prior to the Completion Date.
3. **Final Contract Price:** The total amount of money payable to the Contractor under the terms and conditions of the Contract.

CONTRACT TIME

The period of time established by the Contract within which the Work must be completed.

CONTRACTOR

The individual or entity contracting with the Owner to do the Work.

CULVERT

Drainage Structure that may, or may not, directly support traffic and that extends across and beneath a highway, street, driveway, alley, arterial, or other public way.

DATES

1. **Bid Opening Date:** The date on which Bids for the Work are opened and read publicly.
2. **Award Date:** The date on which the Owner formally accepts the lowest responsive Bid of a responsible Bidder and Awards the Contract for the Work.
3. **Notice to Proceed Date:** The date stated in the Notice to Proceed on which the Contract Time begins.
4. **Substantial Completion Date:** The date the Engineer determines the Owner has full and unrestricted use and benefit of the facilities, both from an operational and safety standpoint, and only minor incidental Work, replacement of temporary substitute facilities, or correction or repair remains for the physical completion of the Contract.
5. **Physical Completion Date:** The date the Owner determines that all Work is physically complete on the Project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.
6. **Completion Date:** The date, certified in writing by the Owner, when the Work specified in the Contract is completed and all the obligations of the Contractor under the Contract are fulfilled by the Contractor. All documentation required by the Contract and required by law must be furnished by the Contractor before establishment of this date.

DAY

Unless otherwise specified, Day(s) shall mean Calendar Day(s).

1. **Business Day:** Any Day other than Saturday, Sunday, or Holiday.
2. **Calendar Day:** The time period of twenty-four hours measured from midnight to the next midnight.
3. **Non-Working Day:** The following are Non-Working Days:
 - a. Saturday.
 - b. Sunday.
 - c. Holiday.
 - d. A Day upon which the Engineer issues a suspension order.
 - e. A Day the Contract specifically requires the Contractor to suspend the Work.
4. **Working Day:** A Day not otherwise defined as a Non-Working Day.
5. **Unworkable Day:** A partial or whole Working Day the Engineer declares to be unworkable because of unusually severe weather, or another condition beyond the control of the Contractor that prevents satisfactory and timely performance of the Work, when such performance, if not hindered, would have otherwise progressed toward completion of the Work.

DECLARATION

The part of the Bid Form that is signed by the Bidder, which acknowledges Addenda issued during the bidding period and Contract conditions relating to affirmative action/equal employment opportunity; non-collusion; insurance and subcontracting.

DEDUCTIVE

A supplemental unit of Work or group of Bid items, identified separately in the Bid that may, at the discretion of the Owner, be deducted from the Base Bid.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

A small business that is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

DRAWINGS

The portions of the Contract showing in graphic or pictorial form the design, location, and dimensions of the elements of the Work.

ELECTRICAL SAFETY OBSERVER

The Engineer's authorized Assistant assigned to monitor electrical safety, unless indicated otherwise in the Contract.

ENGINEER

The Owner's representative(s), or authorized Assistant, who administers the Work of this Project.

EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (ESCBMPs)

The city Contractor shall use on-site construction practices and devices that prevent, reduce, or treat erosion and sedimentation and maintain surface water quality.

HOLIDAY

Pursuant to SMC 4.20.190 and RCW 1.16.050, Holidays for The City of Seattle are the:

1. First day of January (New Year's Day).
2. Third Monday of January (Martin Luther King, Jr.'s Birthday).
3. Third Monday of February (President's Day).
4. Last Monday of May (Memorial Day).
5. Fourth Day of July (Independence Day).
6. First Monday of September (Labor Day).
7. Eleventh Day of November (Veterans' Day).
8. Fourth Thursday of November and the Friday immediately following (Thanksgiving Day).
9. Twenty-fifth Day of December (Christmas Day).

When any Holiday falls on a Sunday, the following Monday shall be considered a Holiday. When any Holiday falls on a Saturday, the preceding Friday shall be considered a Holiday. Holidays are Non-Working Days.

INSPECTOR

See "Engineer."

JOB SITE

See "Project Site."

LABORATORY

The materials laboratory of the Engineer or such other laboratories authorized in writing by the Engineer.

LIQUIDATED DAMAGES

The amount(s) stated in the Contract to be paid to the Owner by the Contractor, for each Working Day of delay in achieving the Substantial Completion Date and the amounts stated in the Contract to be paid after Substantial Completion and until the Physical Completion Date is achieved. Such obligation shall not be construed as a penalty, and may be Deducted by the Owner from any payments which are due or become due to the Contractor.

MATERIALS

Any substance specified for use in the construction of the project that enters into and forms a part of the finished Work.

MATERIALPERSON

A person or entity that furnishes material, supply, commodity, equipment, or manufactured or fabricated products and does not perform labor at the Project Site.

MINERAL AGGREGATE

Rock, gravel, sand or a blend thereof, with properties defined in the Standard Specifications which are commonly used in Seattle's road, bridge, and municipal construction.

MINORITY AND WOMEN'S BUSINESS ENTERPRISE (MWBE)

A business that has self-identified or has been certified by the Washington State Office Of Minority and Women's Business Enterprises as a bona fide minority business enterprise, and a bona fide women's business enterprise. A MWBE is a business that is at least 51% owned by one or more minority women, and whose management and daily operations are controlled by one or more minority women.

MINORITY BUSINESS ENTERPRISE (MBE)

A business that has self-identified or has been certified by the Washington State Office Of Minority and Women's Business Enterprise as a bona fide Minority and Women's Business Enterprise. A MBE is a business that is at least 51% owned by one or more minority males, and whose management and daily operations are controlled by one or more minority males.

NOTICE OF AWARD

A formal written notice from the Owner to the successful Bidder signifying acceptance of the Bid.

NOTICE TO PROCEED

The written notice from the Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract Time begins.

ON-SITE-ELECTRICAL LEAD

The Contractor's on-site representative responsible for and authorized to resolve electrical safety related issues including those raised by the Engineer, Assistant, or Electrical Safety Observer.

OWNER

The City of Seattle.

PROJECT MANUAL

The compilation of written provisions and requirements for the Work related to a specific project. The Project Manual includes, but is not limited to, the requirements for Bids, sample forms, original and executed Agreement Form, wage rates, conditions of the Contract, Special Provisions and Addenda.

PROJECT SITE

The geographic location, as defined in the Contract documents, where the Work is to be performed.

REAL PROPERTY

Land and improvements permanently affixed to the land.

RIGHT OF WAY

Real property secured and reserved for public or private transportation, utility, or other purposes.

SEWER

Any pipe or conduit used for carrying sewage and other waste liquids, excluding hazardous materials.

SHOP DRAWINGS

Drawings, diagrams, illustrations, schedules, performance charts, brochures, and other similar data prepared or submitted to the Owner by the Contractor or a Subcontractor, manufacturer, Materialperson, or distributor to illustrate how specific portions of the Work shall be fabricated or installed.

SPECIAL PROVISIONS

Supplemental provisions and modifications to the Standard Specifications that apply to an individual project and that are found in the Project Manual.

SPECIFICATIONS

Written technical descriptions of materials, equipment, construction systems, standards, and workmanship that, in conjunction with the Drawings and other Contract documents, detail the requirements for the Work.

STANDARD PLANS

The current edition of The City of Seattle Standard Plans for Municipal Construction adopted by the Owner.

STANDARD SPECIFICATIONS

The current edition of The City of Seattle Standard Specifications for Road, Bridge, and Municipal Construction adopted by the Owner and supplemented by the current edition of the City of Seattle Traffic Control Manual for In-Street Work.

STATE

The State of Washington.

STORM DRAIN

A pipe used for conveying rainwater, subsurface water, condensate cooling water or other similar discharges, but not commercial and industrial wastewater or sewage. Storm drains carry the excessive storm water from the point source and convey it to the nearest natural body of water.

STRUCTURES

Bridges, Culverts, walls, buildings, foundations, water tanks, transmission towers, cribbing, caissons, or cofferdams, and other similar features that may be encountered in the Work and are classified as Structures in the Contract.

SUBCONTRACTOR

An entity or individual who performs a portion of the Work pursuant to a Contract or subcontract of any tier with the Contractor, with the prior written approval of the Engineer as evidenced by the submission of the Subcontractor approval application.

SUBSTANTIAL COMPLETION

See "Dates".

SUPPLEMENTAL CONTRACT

An agreement for performance of a portion of the Work in accordance with the provisions of RCW 60.28.011(7).

SUPPLIER

See "Materialperson".

SUPPLIES

Any substance or matter used or consumed in the construction of the project and its appurtenances that do not become part of the Structure or improvement.

SURETY

A surety company that is bound with the Contractor to ensure:

1. Faithful performance of the Contract, and
2. Payment of all laborers, mechanics, Subcontractors and Materialperson and all persons or entities that supply any such person with provisions and Supplies for the carrying on of the Work.

TRAFFIC CONTROL MANUAL FOR IN-STREET WORK

The City of Seattle guide for Work within the Right Of Way, used in conjunction with and as a supplement to the Manual on Uniform Traffic Control Devices (MUTCD).

VOLUNTARY GOAL

Participation level, voluntarily established by the Contractor, for potential employment of women or minority employees and/or the use of WMBEs, that is not a requirement or condition of the Contract.

WATER MAIN

A water supply pipe for public or community use.

WOMEN AND MINORITY BUSINESS ENTERPRISES (WMBES)

See "MWBE."

WOMEN'S BUSINESS ENTERPRISE (WBE)

A business that has self-identified or has been certified by the Washington State Office of Minority and Women's Business Enterprises as a bona fide women's business enterprise and is at least 51% owned by women.

WORK

The provision of all labor, Materials, equipment, Supplies, and everything needed to successfully complete a project pursuant to the Contract.

SECTION 1-02 BID PROCEDURES AND CONDITIONS**1-02.1 QUALIFICATIONS OF BIDDERS**

Bidders shall be qualified by experience, financing, Equipment, and organization to do the Work called for in the Contract. The Owner reserves the right to take whatever action it deems necessary to ascertain the ability of the Bidder to perform the Work satisfactorily. This action may include conducting an evaluation of the Bidder's qualifications and references prior to Award.

1-02.2 RESPONSIBLE BIDDER

Before Award of the Contract, the Bidder must meet the following responsibility criteria to be considered a responsible Bidder. The Bidder must:

1. at the time of bid submittal, have a certificate of registration in compliance with Chapter 18.27 RCW;
2. have a current State unified business identifier number;
3. have industrial insurance coverage for the Bidders employees working in Washington as required in Title 51 RCW; an employment security department number as required in Title 50 RCW; and a state excise tax registration number as required in Title 82 RCW; and
4. not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065
5. meet any supplemental criteria requirements, if applicable.
 - a. In the case that supplemental criteria are established for the project, in a timely manner before the bid submittal deadline, the bidder may request that the supplemental criteria be modified. If the City determines a modification is necessary, an addendum to the bidding documents will be issued to identify the new criteria.
 - b. If the bidder fails to supply information requested concerning responsibility within the time and manner specified in the Bid Documents, the Owner may base its determination of responsibility upon any available information related to the supplemental criteria or may find the Bidder not responsible [note: this paragraph only applies when the City has established criteria in addition to 1-4 above].

If the Owner determines a Bidder to be not responsible, the Owner will provide, in writing, the reasons for the determination. The Bidder may appeal the determination within the time period specified in the Bidding Documents [see § 1-

03.7 re appeals] by presenting additional information to the Owner. The Owner shall consider the additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Owner will not execute a contract with any other bidder until two (2) business Days after the Bidder determined to be not responsible has received the final determination.

Additionally, the Bidder must verify responsibility criteria for each first tier subcontractor, and a subcontractor of any tier that hires other subcontractors must verify responsibility criteria for each of its subcontractors. Verification shall include that each subcontractor, at the time of subcontract execution, meets the responsibility criteria listed in items (1) through (4) above, and possess an electrical Contractor license, if required by Chapter 19.28 RCW, or an elevator Contractor license, if required by Chapter 70.87 RCW. This verification requirement, as well as the responsibility criteria, must be included in every public works Contract and subcontract of every tier.

1-02.3 ESTIMATED QUANTITIES

The quantities shown on the Bid Form are estimates only and are stated only for Bid comparison purposes. The Owner does not warrant, expressly or by implication, that actual quantities of the Work will correspond with those estimated. The Engineer reserves the right to increase or decrease the amount of any Bid item of Work, or to make other changes in the Work as necessary. Payment will be made on the basis of the actual quantities of each Bid item of Work completed in accordance with the Contract.

1-02.4 EXAMINATION OF BID DOCUMENTS AND PROJECT SITE

1-02.4(1) GENERAL

The Bidder shall carefully examine the Bid Documents. Submittal of a Bid shall be conclusive evidence that the Bidder has made these examinations and understands all requirements for the performance of the Work. The Bidder further warrants, agrees and acknowledges by submitting a Bid, that the Bidder:

1. has taken all steps necessary to ascertain the full scope, nature and location of the Work;
2. has investigated and is satisfied as to the general and local conditions which can affect the Work and its cost, including but not limited to:
 - a. conditions bearing upon acquisition, transportation, disposal, handling, and storage of materials,
 - b. the availability of labor, materials, water, electric power, and roads,
 - c. uncertainties of weather, river stages, tides, or similar physical conditions at the Project Site,
 - d. the conformation and condition of the ground,
 - e. the character of equipment and facilities needed preliminary to and during Work performance, and
 - f. site and environmental conditions which by statute, law, or regulation require specific training and certifications for employees;
3. is satisfied as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the Project Site (including Materials sites) as well as from the Bid Documents and other information made a part of this Contract; and
4. is satisfied as to the adequacy of the amount of time allowed for physical completion of the Contract.

Any failure of the Bidder to take the actions described and acknowledged above, shall not relieve the Bidder from responsibility:

1. for estimating properly the difficulty and cost of successfully performing the Work, and
2. from proceeding to successfully perform the Work without additional expense to the Owner.

The Bidder agrees that the Owner shall not be liable to the Bidder for any claim whatsoever, if the claim directly or indirectly results from the Bidder's failure to investigate and become sufficiently knowledgeable of the conditions under which the Contract is to be performed.

The Bidder shall be familiar and comply with all federal, state, and local laws, ordinances, and regulations that might affect those engaged in the Work. The Owner will not consider any plea of misunderstanding or ignorance of such requirements.

Bid prices shall reflect the Bidder's anticipated cost of completing the Work, including methods, Materials, labor, and equipment. The Bidder will not be compensated for any costs that exceed those in the Bid prices except as the Contract may provide.

The Bidder is advised to include in its Bid the applicable costs of complying with Section 1-07.18 relating to insurance

A claim will not be allowed because of any ambiguity in the Contract if:

1. The Bidder discovers an ambiguity but fails to notify the Engineer, or
2. The Bidder failed to discover any ambiguity that would be discovered by a reasonably prudent Contractor in preparing its Bid.

Any prospective Bidder desiring an explanation or interpretation of the Bid Documents must request the explanation or interpretation in writing within three (3) Business Days prior to Bid opening. Oral explanations, interpretations, or instructions given by anyone before Award will not be binding on the Owner. Any information given to a prospective Bidder concerning any of the Bid Documents will be furnished to all prospective Bidders as an Addendum if:

1. that information is deemed by the Engineer to be necessary in submitting a Bid, or
2. the Engineer concludes that the lack of information would be prejudicial to other prospective Bidders.

1-02.4(2) SUBSURFACE INFORMATION

If the Engineer has made a subsurface investigation of the Project Site of the proposed Work, the boring log data, soil sample test data, and geotechnical reports accumulated by the Engineer will be made available for inspection by the Bidders. The boring logs shall be considered as part of the Contract. However, the Engineer makes no representation, guaranty or warranty, expressed or implied, that:

1. the Bidder's interpretation from the boring logs or geotechnical reports are correct;
2. moisture conditions and indicated water tables do not vary from those found at the time the borings were made;
3. the ground at the location of the borings has not been physically disturbed or altered after the boring was made; and
4. the conditions, materials, or proportions of the materials is consistent between the specific borings.

In addition to the above data, DPD has geotechnical reports for private property located in an Environmentally Critical Area-Geographically Hazardous zone if the private property has been under DPD permit review. This data is available for the Contractor's review by contacting:

DPD
Soils Reports
700 Fifth Avenue
22nd Floor
Seattle, Washington 98104
206-684-8860
206-233-7902 (FAX)

The availability of subsurface information from the Engineer shall not relieve the Bidder or the Contractor of any duty to make examinations and investigations as required by Section 1-02.3(1) and any other responsibility under the Contract, or as may be required by law.

1-02.5 FORM AND STYLE OF BID

A Bid shall be submitted only on the Bid Form issued by the Owner. The sample Bid Form found in the Project Manual shall not be used to submit Bids. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. A price shall be submitted for each Bid item listed.

Spaces to be filled in by the Bidder include:

1. Bid item prices;
2. Bid item amounts (extensions);
3. Summations and, where applicable, retail sales taxes;
4. Acknowledgment of Addenda;
5. The Bidder's name, address, telephone and fax number, UBI number, and signature;
6. A State of Washington Contractor's Registration Number; and
7. A City of Seattle Business License Number.

The signer of the Bid shall initial any correction to a Bid made by interlineation, alteration, or erasure. The Bidder shall make no stipulation on the Bid Form nor qualify the Bid in any manner. A Bid amount shall be included for every Additive, Alternate, or Deductive identified in the Bid Form, unless otherwise specified. A person authorized to legally bind the Bidder must sign the Declaration in the Bid Form.

1-02.6 ADDENDA

Questions regarding the meaning or intent of the Bid Documents shall be submitted to the Engineer in writing within three (3) Business Days prior to the Bid opening. If the Engineer determines modifications or clarifications are required, they will be provided by Addenda. Only issues addressed by a written Addendum are binding. Oral or other interpretations or clarifications are without effect.

Addenda and other project information will only be sent to "official" plan holders who downloaded or ordered documents through the City's official electronic Bidding website (including plan centers that obtained documents through the website). A link to the current electronic bidding website can be found at <http://www.cityofseattle.net/contract/pubwkbids.htm>. All Bidders are encouraged to check the electronic bidding website for Addenda at least twenty-four hours prior to Bid Opening.

The Bidder shall acknowledge receipt of each Addendum by filling in the appropriate spaces on the Bid Form Declaration.

1-02.7 BID GUARANTY

A Bid shall be accompanied by:

1. a certified or cashier's check payable to the order of The City of Seattle, or
2. a Bid bond.

The Bid Guaranty shall be for a sum equal to five percent of the maximum Bid amount that could be Awarded based on the Bidder's Bid, including sales tax and Additives, if applicable. A Bid will not be accepted or considered unless accompanied by a Bid Guaranty.

Bid bonds must be issued by a surety company that is authorized to do business in the State of Washington and appears on the current list of authorized insurance companies published by the Office of the Washington State Insurance Commissioner.

Bid bonds shall contain the following:

1. Ordinance, L.I.D., or specification number of the Project;
2. Name and nature of improvement
3. The City of Seattle named as obligee;
4. The amount of the Bid bond stated either as a dollar figure or as a percentage that represents five percent of the maximum Bid amount that could be Awarded;
5. Signature of the Bidder's officer empowered to sign official statements. The signature of the person authorized to submit the Bid should agree with the signature on the bond, and the title of the person must appear along with the signature; and
6. The signature of the Surety's officer empowered to sign the bond and the power of attorney.

1-02.8 NONCOLLUSION REQUIREMENT

The Bidder, by signing its Bid, declares that the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in the preparation and submission of its Bid to the Owner for consideration in the Award of a Contract on the Improvement.

1-02.9 BID SUBMITTAL

1-02.9(1) GENERAL

The Bid Form shall be submitted at the time and place specified in the Advertisement for Bids. The Bid Form, together with the Bid Guaranty and such other documentation as is required, shall be enclosed in a sealed envelope marked with the project title and the Bidder's name, and be addressed to:

mailing address: Purchasing and Contracting Services Division
City of Seattle Department of Executive Administration Seattle Municipal Tower,
P.O. Box 94687
Seattle, Washington 98124-4687

physical address: Purchasing and Contracting Services Division
City of Seattle Department of Executive Administration Seattle Municipal Tower,
Suite 4112
700 Fifth Avenue
Seattle, Washington 98104

If sending by courier (UPS, FedEx, etc.) the physical street address must be used. If mailing by regular US mail, the Post Office Box must be used. Bidders are responsible for ensuring that the proper Zip Code is used.

If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope, with a notation "BID ENCLOSED" on the face of the envelope. The Bidder assumes full responsibility for the timely delivery of the Bid at the location designated in the Advertisement for Bids. A Bid submitted or delivered after the time fixed for receipt of Bids will not be accepted.

1-02.9(2) CHANGE OF BID SUBMITTAL DATE

The Owner reserves the right to change the date and time for Bid submittal. Notification of the change will be by Addendum.

1-02.9(3) BIDDER/SUBCONTRACTOR LIST

In compliance with RCW 39.30.060, for any public works Contract estimated to cost one million dollars (\$1,000,000.00) or more, each Bidder shall complete and submit the Bidder/Subcontractor List form, Section 0-01.4 in the Bid Form, naming those Subcontractors with whom the Bidder, if Awarded the Contract, will subcontract to perform the heating, ventilation and air conditioning; plumbing; and electrical Work, or naming itself for the Work. The Bidder may list no more than one Subcontractor for each category of Work identified, unless Subcontractors vary with Bid Alternates, Additives, or Deductives, in which case the Bidder must indicate on a separate Bidder/Subcontractor List which Subcontractor will be used for which Alternate, Additive, or Deductive. Failure of the Bidder to complete and submit the Bidder/Subcontractor List as required shall render the Bidder's Bid non-responsive and, therefore, void.

Section 0-01.4 in the Bid Form, the Bidder/Subcontractor List, may be submitted with the Bid, or separately within one hour of the time and date for Bid submittal, but no later than 3:00 p.m. on Bid Opening date. The Bidder/Subcontractor List may be faxed to (206) 684-4511.

No changes shall be made to any Bidder/Subcontractor List that has been submitted following the Bid submittal time.

1-02.10 MODIFICATION OR WITHDRAWAL OF BID

After submitting a Bid to the Owner, the Bidder may withdraw its Bid if:

1. the Bidder submits a written request signed by a person authorized to bind the Bidder, and
2. the Owner receives the written request before the time for receipt of Bids.

After submitting a Bid to the Owner, the Bidder may modify its Bid if:

- 1) the Owner receives the written modification request before the time for receipt of Bids;
- 2) the modification request is on company letterhead;
- 3) the title of the project is on the modification request;
- 4) the modification request contains a detailed description of the requested change including Bid Item, Bid item price, Bid item quantity, Bid item extension, subtotals, and total amount Bid;
- 5) a person authorized to bind the Bidder has signed the modification request.
- 6) If the modification request is sent by FAX (206-684-4511), the original hard copy of the FAX shall be promptly mailed to PCSD, City of Seattle Department of Executive Administration, P.O. Box 94687, Seattle, Washington 98124-4687.

The original Bid, as modified prior to the time designated for receipt of Bids, will be accepted and used as the official Bid.

A Bid may not be modified, withdrawn, or canceled by the Bidder after the time for receipt of Bids unless the Award is delayed for a period exceeding the limit set forth for Award or a Bidder's claim of error is upheld by the Owner.

1-02.11 ADDITIVE, ALTERNATE, DEDUCTIVE

The Engineer reserves the right to arrange the Bid Form with Alternate, Additive, and/or Deductive items, if such be to the advantage of the Owner. The Bidder shall Bid on all Alternates, Additives and Deductives in the Bid Form unless otherwise specified in the Contract.

1-02.12 PUBLIC OPENING OF BIDS

Bids will be opened and read immediately after 2:00 p.m. on the date indicated in the Advertisement for Bids or in an Addendum, in the Seattle Municipal Tower, 700 Fifth Avenue, Suite 4112, Seattle, Washington 98104.

1-02.13 IRREGULAR BIDS

A Bid will be considered irregular and non-responsive, and will be rejected if:

1. The authorized Bid Form is not used or is altered; or
2. The completed Bid Form contains any unauthorized addition, deletion, alternate Bid, or condition; or
3. The Bidder adds provisions reserving the right to accept or reject the Award or to enter into the Contract; or
4. A Bid item price cannot be determined; or
5. For Projects estimated to cost \$1,000,000 or more, the Bidder did not comply with the Bidder/Subcontractor list requirements (See Section 1-02.8(3), Bidder/Subcontractor List); or
6. The Bid does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.

A Bid may be considered irregular and may be rejected if:

1. The Bid Guaranty is insufficient or improper; or
2. Any of the Bid item prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Owner; or
3. Receipt of Addenda is not acknowledged; or
4. The Bidder is a member of a joint venture or partnership and the joint venture or partnership submits a Bid for the same project (in such an instance, both Bids may be rejected); or
5. The entries in the Bid Form are not typewritten or entered in ink; or
6. The Bid is not properly executed; or
7. The Bidder did not Bid on all Additives, Deductives, or Alternates, when required; or
8. The Bid does not include a Bid item price for every Bid item.

1-02.14 DISQUALIFICATIONS OF BIDDERS

A Bidder may be deemed not responsible and its Bid rejected if:

1. More than one Bid is submitted for the same project from a Bidder under the same or different names; or
2. Evidence of collusion exists with any other Bidder or potential Bidder; or Participants in collusion will be restricted from submitting further Bids and may be debarred pursuant to SMC Chapter 20.70; or
3. A Bidder, in the opinion of the Owner, is not qualified to perform the Work specified; or
4. An unsatisfactory performance record exists as shown by past or current Work for the Owner, or for others, as judged from the standpoint of conduct of the Work, environmental or safety compliance records, workmanship, progress, Affirmative Efforts, or equal employment opportunity practices; or
5. A Bid is submitted on a Bid Form that is not issued by the Owner; or
6. The Bidder failed to settle bills for labor or Materials on past or current contracts; or
7. The Bidder has failed to complete a public Contract or has been convicted of a crime arising from a previous public Contract; or
8. The Bidder is unable, financially or otherwise, to perform the Work; or
9. A Bidder is determined to be not responsible pursuant to RCW 39.04 and section 1-02.2(1).
10. The Bidder failed to meet the Affirmative Efforts requirements of SMC Ch. 20.42 or RCW 35.22.650 pertaining to women and minority employment and/or women and minority subcontracting; or
11. The Bidder under consideration for Award does not submit the Equal Benefits Compliance Declaration (if applicable), indicating compliance with SMC Ch. 20.45 and the Equal Benefit Program Rules; or
12. For any other reason deemed proper by the Owner

SECTION 1-03 AWARD AND EXECUTION OF CONTRACT**1-03.1 CONSIDERATION OF BIDS****1-03.1(1) RESERVED****1-03.1(2) BID TABULATION**

After Bid opening, Bids will be checked for correctness of Bid item price extensions and the total Bid price. A discrepancy between a Bid item price and the extended amount of any Bid item shall be resolved by accepting the Bid item price as correct.

The summation of extensions, corrected where necessary and including sales taxes if applicable, will be used for Award purposes, to fix the Awarded Contract Price and the amount of the Contract Bond.

1-03.1(3) CLAIM OF ERROR

A Bidder who wishes to claim error after the Bids have been opened and tabulated shall submit a signed and notarized statement, accompanied by original work sheets used in the preparation of the Bid, requesting relief from the responsibilities of Award. The statement shall describe the specific error(s) and certify that the work sheets are the originals used in the preparation of the Bid. The statement and the work sheets shall be submitted to:

Purchasing and Contracting Services Division
City of Seattle Department of Executive Administration

physical address:

Seattle Municipal Tower, Suite 4112
700 Fifth Avenue

mailing address:

P.O. Box 94687
Seattle, Washington 98124-4687
Telephone (206) 684-0430
Fax (206) 684-4511

by 5:00 p.m. on the Business Day after Bid opening or the claim will not be considered. The Owner reserves the right to extend this deadline at its discretion.

The Engineer will review the certified work sheets to determine the validity of the claimed error and make a recommendation to the Owner. If the Owner concurs in the claim of error, the Bidder will be relieved of responsibility, the Bid will be withdrawn from the Bid pool and the Bid Guaranty of the Bidder will be returned. Thereafter, at the discretion of the Owner, all Bids may be rejected or Award made to the next lowest responsible Bidder.

1-03.1(4) PRE-AWARD INFORMATION

The Owner will evaluate all Bids to determine the lowest responsive Bid of a responsible Bidder. This evaluation may include investigations to establish the responsibility, qualifications, financial resources, construction experience and organization available to do the Work pursuant to the Contract.

- A. Pre-Award Information Sheet: The Apparent Low Bidder shall, within seven (7) Business Days after receipt of a written request from the Owner or Engineer, submit the Pre-Award Information Statement in the Appendix of the Project Manual to the Project Manager.
- B. Responsible Bidder Information: If requested by the Owner, the Apparent Low Bidder must provide any Responsible Bidder information, including any applicable supplemental criteria requirements, within seven (7) Business Days. See Section 1-02.2.
- C. Seattle Business License: The Apparent Low Bidder must have a current Seattle Business License and must be current on all Business and Occupancy Taxes pursuant to SMC Ch. 5.45.060
- D. Equal Benefits: Except as may be provided in the Equal Benefits Program Rules, the Bidder under consideration for Award shall submit the Equal Benefits Work Sheet and Declaration to PCSD within seven (7) Business Days of receipt of the request. The Apparent Low Bidder's compliance with SMC Ch. 20.45 and the Equal Benefit Program Rules shall be part of the Owner's evaluation of the Bidder's responsibility. See Section 1-07.11(1) for more information and reporting requirements.
- E. Construction Outreach Plan: The Apparent Low Bidder is responsible for compliance with SMC Ch. 20.42 and RCW 35.22.650 pertaining to women and minority employment and subcontracting. If applicable, the Bidder shall submit an Outreach Plan to PCSD within seven (7) Business Days of receipt of the request, if applicable. The Appendix of the Project Manual contains a sample Outreach Plan form. See Section 1-07.11(2) for more information and reporting requirements. The Construction Outreach Plan shall document:
 1. Affirmative Efforts to employ women and minority group members;
 2. Affirmative Efforts to subcontract with Women and Minority Businesses on City contracts; and
 3. The Contractor's non-discrimination in the provision of goods and services.
- F. In addition, an Apparent Low Bidder under consideration for Award may be required to furnish:
 1. A complete statement as to the origin, composition, and manufacture of any and all Materials to be used in the Project, together with samples which may in turn be subjected to tests to determine their quality and fitness for the Work, as provided for in the Contract;

2. A critical path schedule in the form required by the Engineer showing the order of the Work and the time required on the various phases of the Work;
3. A breakdown of costs assigned to any Bid item; and
4. Such additional information as may be specified to assist the Owner in ascertaining the Bidder's general ability to perform the Work.

1-03.1(5) RIGHTS OF THE OWNER

In addition to such other rights as may be reserved elsewhere in the Contract, the Owner reserves the right to:

1. Reject any or all Bids and, at the Owner's discretion, re-advertise for Bids,
2. Waive informalities or immaterial irregularities in the Bidding,
3. Accept the lowest responsive Bid of a responsible Bidder,
4. Correct arithmetical errors in a Bid,
5. Revise or cancel the Work,
6. Require the Work be done in another way if, in the opinion of the Owner, the best interest of the public will be served, and
7. Award such Additive, Deductive or Alternate, as may be set forth in the Bid Form.

1-03.2 AWARD OF CONTRACT

If a Contract is to be awarded, the Owner will endeavor to Award the same within sixty (60) Days after the Bid Opening Date. If a Contract is not awarded within that 60-Day Award period, all Bids will expire and will not be considered further unless, prior to the end of the 60-Day Award period the Owner requests and the Bidder(s) grant an extension of the time period for Bid evaluation and the allowable period for Award.

The following conditions shall apply to each such extension:

1. The extension shall be by mutual consent between the Owner and the Bidder(s);
2. The extension shall be documented in writing on a form acceptable to the Owner; and
3. The written extension shall be received by the Owner prior to the expiration of the initial 60-Day Award period.

The Owner reserves the right to request an extension after expiration of the 60-Day Award period subject to the consent of the Bidder(s).

1-03.3 EXECUTION OF CONTRACT

1-03.3(1) GENERAL

The Owner is prohibited by RCW 39.06.010 from executing a Contract with a Contractor who is not registered or licensed as required by the laws of the State. In addition, SMC 5.45.060 requires that every person engaging in business with The City of Seattle possess a City of Seattle Business License.

Bidders shall provide their City of Seattle Business License number and their State of Washington Contractor's Registration number in the spaces provided on the Bid Form Affidavit.

1-03.3(2) TIME TO EXECUTE AGREEMENT FORM

The original and one copy of the Project Manual, including the unsigned Agreement Form, will be available for signature by the successful Bidder, on the first Business Day following Award, at the:

Purchasing and Contracting Services Division
City of Seattle Department of Executive Administration

Physical address:

Seattle Municipal Tower, Suite 4112
700 Fifth Avenue
Seattle, Washington

Mailing address:

P.O. Box 94687
Seattle, Washington 98124-4687
Telephone (206) 684-0430

The successful Bidder shall submit to PCSD within ten (10) Business Days of Award:

1. The original Project Manual including signed Agreement Form;
2. The Contract Bond (see Section 1-03.4); and
3. Evidence of insurance (see Section 1-07.18).

The above time limit may be extended by mutual agreement between the Owner and the successful Bidder.

The Owner will forward a copy of the fully executed Agreement Form to the successful Bidder for incorporation into the successful Bidder's copy of the Project Manual.

No Work shall begin within the project limits or within sites furnished by the Owner until the successful Bidder has been given the Notice to Proceed per Section 1-08.4. The Contractor shall bear all risks for any Work begun prior to the issuance of the Notice to Proceed.

1-03.4 CONTRACT BOND

The successful Bidder shall provide an executed Contract Bond for the Awarded Contract Price. The Contract Bond shall:

1. Be on an Owner-approved form;
2. Be signed by an approved Surety (or Sureties) that:
 - a. Is registered with the Washington State Insurance Commissioner,
 - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner;
 - c. Has a current rating of at least A-VII in A.M. Best's Key Rating Guide; and
 - d. Is included in the U.S. Department of the Treasury's Listing of Approved Sureties (Circular 570).

3. The Owner may require the Surety (or Sureties) named on the Contract Bond to appear and qualify itself whenever the Owner deems the Surety (or Sureties) to be inadequate. In such case, the Owner may require upon written demand that the Contractor furnish additional Surety to cover any remaining Work. Until the added Surety is furnished, payment on the Contract will stop.

1-03.5 FAILURE TO EXECUTE THE CONTRACT

The Bidder's Bid Guaranty will be forfeited if the Bidder to whom the Award was made fails to:

1. Execute the Agreement Form within the required time period; or
2. Furnish satisfactory bond(s) and insurance(s) within the required time period.

The Owner may then Award the Contract to the second lowest responsible Bidder.

If the second lowest responsible Bidder fails to execute the Agreement Form and furnish satisfactory bond(s) and insurance(s) within ten (10) Business Days after Award has been made to the second Bidder, or within the time period mutually agreed upon by the Owner and second Bidder, the second Bidder's Bid Guaranty will also be forfeited. The Contract may be Awarded successively in a like manner to the remaining responsible Bidders until the Agreement Form is executed and bond(s) and insurance(s) furnished by a responsible Bidder or the remaining Bids are rejected.

1-03.6 RETURN OF BID GUARANTY

After the Agreement Form has been executed and the required bond(s) and insurance(s) approved by the Owner, the Bid Guaranty in the form of a check will be returned to the successful Bidder. A Bid Guaranty in the form of a Bid Bond from the successful Bidder shall be filed with the executed Contract. A Bid Guaranty in the form of a check will be returned to each unsuccessful Bidder after Contract Award or after all Bids have been rejected. Bid Bonds of unsuccessful Bidders will be retained for thirty (30) -Days after the executed Contract has been filed with the City Clerk, and then disposed of, unless return is requested by an unsuccessful Bidder.

1-03.7 APPEALS

Any protest of an intended Award, any appeal of a notice that a Bid is non-responsive, or of a notice that a Bidder is not responsible must be filed in writing by 5:00 P.M. on the second Business Day after such notification. All such protests or appeals shall be filed with the:

Director
Purchasing and Contracting Services Division
City of Seattle Department of Executive Administration
physical address:
Seattle Municipal Tower, Suite 4112
700 Fifth Avenue
mailing address:
P.O. Box 94687
Seattle, Washington 98124-4687
Telephone (206) 684-0430
Fax (206) 684-4511

The Department of Executive Administration will review and decide all such protests and appeals.

SECTION 1-04 SCOPE OF WORK**1-04.1 INTENT OF CONTRACT**

The intent of the Contract is to prescribe a complete Work. Omissions from the Contract of details of the Work that are necessary to carry out the intent of the Contract shall not relieve the Contractor from completing the Work.

The Project Manual may describe Work the Standard Specifications do not cover. The Contractor's Work shall comply first with the Special Provisions requirements of the Project Manual and then with any Standard Specifications that may apply. The Contractor shall include all costs of completing the Work in the Bid item prices.

1-04.1(1) BID ITEMS INCLUDED IN THE BID FORM

The Contractor shall furnish all labor, Materials, tools, Equipment, transportation, Supplies, and everything needed or required to make each and every part of the Work complete. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

1-04.1(2) BID ITEMS NOT INCLUDED IN THE BID FORM

Where the Contract requires Work that is not listed as a Bid item in a "Payment" clause of the Standard Specifications, then the costs shall be incidental and included within the Bid item prices of the various Bid items in the Contract. If Bid item Work is performed and a Bid item for that Work is not included in the Bid Form but is found in the payment Section of a Standard Specification, then payment will be in accordance with Section 1-09.4. Exceptions for Bid item work in which payment will be considered incidental to other Bid items are specified in the Standard Specification payment Sections and may also be included in the Contract in which no separate or additional payment will be made. See Section 1-09.3.

1-04.2 COORDINATION OF CONTRACT

All parts of the Contract are essential and complementary. A requirement occurring in one is binding as though occurring in all.

Work or Materials that have been omitted from the description of a part of the Work, but is clearly implied, shall be furnished by the Contractor as though it had been specifically stated. The Contractor shall inform the Engineer immediately, in writing, if the Contractor finds:

- 1) A discrepancy between various parts of the Contract,
- 2) An error or omission in the Drawings, or
- 3) A discrepancy in the layouts and instructions given by the Engineer,

The Contractor shall not proceed with any Work affected by such discrepancy, error, or omission until directed to do so by the Engineer.

In the event of any conflicting provisions or requirements between the component parts of the Contract, the component parts shall take precedence in the following order:

1. Change Orders.
2. Signed Agreement Form.
3. Addenda.
4. Project Manual (including Bid Form).
5. Drawings.
6. This hard copy version Standard Specifications.
7. The hard copy version Standard Plans.

The web and pdf file compact disc versions, and any other non-hard copy versions of the Standard Specifications and the Standard Plans are for informational purposes only. Should any discrepancy exist between this hard copy version of the Standard Specifications and the web and/or pdf file compact disc and/or any other versions of the Standard Specifications, this hard copy version Standard Specifications shall take precedence over all other versions. Should any discrepancy exist between the hard copy version of the Standard Plans, and the web and/or pdf file compact disc and/or any other versions of the Standard Plans, the hard copy Standard Plans shall take precedence over all other versions of the Standard Plans. Should any discrepancy exist between the hard copy version of the Standard Specifications, and any versions of the Standard Plans, the hard copy Standard Specifications shall take precedence over all versions of the Standard Plans.

When Seattle City Light "guidelines", "standards", or "procedures" are included in the Contract, they have precedence over the Drawings, Standard Specifications and Standard Plans, unless specified otherwise. Written dimensions shall take precedence over scaled dimensions.

Supplemental Drawings provided to the Contractor after the Award of the Contract to further detail or clarify the Work shall have precedence over all other components of the Contract, unless specified otherwise.

This order of precedence shall not apply when Work is required by one part of the Contract but omitted from another part or parts of the Contract. The Work required in one part must be furnished even if not mentioned in other parts of the Contract. If any part of the Contract requires Work that does not include a description for how the Work is to be performed, the Work shall be performed in accordance with standard trade practice(s). For purposes of the Contract, a standard trade practice is one having such regularity of observance in the trade as to justify an expectation that it will be observed by the Contractor in doing the Work.

In case of any ambiguity or dispute over interpretation of the provisions of the Contract, the decision of the Engineer shall be final as provided in Section 1-05.1

1-04.3 RESERVED**1-04.4 CHANGES**

As the Work proceeds, the Engineer may, at any time and without notice to the Surety or sureties, change the Work within the general scope of the Contract. Among others, these changes may include:

1. Deleting any part of the Work;
2. Increasing or decreasing quantities;
3. Altering Specifications, designs, or both;
4. Revising the way the Work is to be done;
5. Adding extra Work;
6. Altering facilities, equipment, materials, services, or sites provided by the Engineer; or,
7. Ordering the Contractor to speed up or delay the Work.

The Contractor shall obtain written consent of the Surety (or Sureties) if changed Work increases the Awarded Contract Price by more than 25 percent or the Engineer specifically requests the Surety's consent.

Changes in the Work will be incorporated into the Contract by Change Order. The Contractor accepts all terms and requirements of a Change Order by endorsing the Change Order, writing a separate acceptance, or not disputing a Change Order as provided for in Section 1-04.5.

An equitable adjustment for deleted work will be made in accordance with Section 1-09.5. An equitable adjustment for an increase or decrease exceeding 25 percent of the original quantity of any Bid item, will be made in accordance with Section 1-04.6. For all other changes the Engineer will determine if the change should be paid for at Bid item prices.

If the Engineer determines that a change increased or decreased the Contractor's costs or time to do any of the Work, including unchanged Work, the Engineer will make an equitable adjustment to the Contract. In general, the Engineer will seek the Contractor's agreement to the terms and the amount of equitable adjustment; however, if the parties are unable to agree on the terms or amount of equitable adjustment, the Engineer will unilaterally determine the amount of equitable adjustment in accordance with Sections 1-09.4 and, if applicable, 1-08.8. The Engineer's decision concerning an equitable adjustment of costs and time shall be final unless the Contractor files a claim and the claim is upheld pursuant to Section 1-04.5.

The Contractor shall proceed with the Work upon receiving:

1. A written Change Order approved by the Engineer, or
2. A written field directive from the Engineer before actually receiving the written Change Order.

Changes normally noted on field stakes or variations from estimated quantities other than noted above, will not require a written Change Order. These changes shall be made at the Bid item prices that apply. The Contractor shall respond immediately to changes shown on field stakes without waiting for further notice.

1-04.5 DISPUTE AND CLAIMS RESOLUTION PROCESS**1-04.5(1) SEQUENCE OF DISPUTE RESOLUTION PROCESS**

If a dispute occurs during the performance of the Contract, the Contractor shall follow the procedures outlined in Section 1-04.5(2). If the procedures outlined in Section 1-04.5(2) fail to provide a satisfactory resolution, the Contractor may then pursue the more formalized method outlined in Section 1-04.5(3), CLAIMS. If the procedures outlined in Section 1-04.5(3) fail to provide a satisfactory resolution, the Contractor may then pursue the method outlined in Section 1-04.5(4), MEDIATION. If the procedures outlined in Section 1-04.5(4) fail to provide satisfactory resolution, the Contractor may then pursue the procedures outlined in Section 1-04.5(5), LITIGATION. The Contractor agrees to follow this sequence of dispute escalation and claims resolution and by failing to follow such procedures, the Contractor completely waives any and all claim for protested Work.

1-04.5(2) NOTICE OF DISPUTE

If the Contractor disagrees with anything contained in a Change Order or any other written or verbal order from the Engineer, including any direction, instruction, interpretation, or determination by the Engineer, then prior to performing any of the Work that is subject to the dispute the Contractor shall:

1. file a signed and dated Notice of Dispute with the Engineer by the end of the Working Day immediately following the order, describing in detail the disputed Work and the nature of the dispute;
2. supplement the Notice of Dispute within ten (10) Working Days of its filing with a written statement providing the following:
 - a. the date of the supplemental written statement;
 - b. the date of the order to perform the disputed Work;
 - c. the nature and circumstances which caused the dispute;
 - d. the Contract provisions that relate in any way to the dispute;
 - e. the estimated additional dollar cost, if any, of performing the disputed Work and how that estimate was determined, in detail; and
 - f. an analysis of the accepted critical path schedule in effect at the time the dispute arose, showing the schedule change or disruption, if the Contractor is asserting a schedule change or disruption; and

3. provide supplemental information if and when requested by the Engineer. Before final payment, the Contractor shall provide the Engineer a written statement of the actual adjustment of cost and/or Contract Time requested.

When performing any disputed Work, the Contractor shall keep complete records of actual costs and actual time incurred, identifying extra costs and extra time associated with the disputed Work. The Contractor shall permit the Engineer complete and unrestricted access to these and any other records the Engineer determines are necessary for evaluating the dispute.

Provided the procedures in this Section are followed, the Engineer will decide the dispute and notify the Contractor of his or her decision within ten (10) Working Days from the date the Contractor filed the supplemental written statement. If the Engineer rejects any part or all of the Contractor's request, the Engineer's notice will contain the reasons for the rejection. Payment for approved Work will be made in accordance with Section 1-09.4. In the event that the Engineer fails to decide the dispute within the ten (10) Working Days period, the Contractor may deem the dispute rejected and file a claim in accordance with Section 1-04.5(3).

Requests for extensions of Contract Time will be evaluated in accordance with Section 1-08.8.

In spite of any dispute, the Contractor shall proceed promptly and diligently with the disputed Work as the Engineer orders.

1-04.5(3) CLAIMS

If, after receiving the Engineer's decision under Section 1-04.5(2), the Contractor believes that either additional payment or an extension of the Contract Time is due, the Contractor may file a claim as provided in this Section. Claims of less than \$50,000 shall be filed within ten (10) Working Days of the date of the Engineer's written notice under Section 1-04.5(2). Claims equal to or greater than \$50,000 shall be filed within twenty (20) Working Days of the date of the Engineer's written notice. The Contractor waives any claim for additional payment if a claim is not filed as provided in this Section. All claims shall be in writing, shall contain sufficient detail to enable the Engineer to ascertain the basis and amount of the claim, shall be certified by the Contractor as stated below and shall be filed with the Engineer. No claim will be allowed after the Completion Date.

At a minimum, the following information must accompany each claim:

1. the date of filing the claim;
2. a detailed factual statement supporting the claim, including all relevant dates, locations, and Bid items of Work affected by the claim;
3. the date on which facts arose which gave rise to the claim;
4. the name of each individual, official, or employee involved in or knowledgeable about the claim;
5. the specific provisions of the Contract which support the claim and a statement of the reasons why such provisions support the claim;
6. if the claim relates to a decision of the Engineer which the Contract leaves to the Engineer's discretion or as to which the Contract provides that the Engineer's decision is final, the Contractor shall set out in detail all facts supporting its position relating to the decision of the Engineer;
7. the identification of any documents and a written statement of the substance of any oral communications that relate in any way to the claim;
8. copies of any additional documents that support the claim (manuals which are standard to the industry governing the Work in which the claim is being made may be included by reference; however, the Contractor shall clearly state which part or parts of the industry standard the Contractor is relying upon);
9. if an extension of Contract Time is sought:
 - a. the specific Days and dates for which it is sought,
 - b. the specific reasons the Contractor believes a time extension should be granted,
 - c. the specific provisions of Section 1-08.8 under which it is sought, and
 - d. the Contractor's analysis on the critical path of its accepted critical path schedule in effect at the time to demonstrate the reason for a time extension (see item 10g in this Section 1-04.5(3));
10. if additional compensation is sought, the exact amount sought and a breakdown of that amount into the following categories:
 - a. Direct Labor: Limited to the amount calculated in accordance with Section 1-09.6(2), excluding the 29% markup;
 - b. Direct "Materials": Limited to the amount calculated in accordance with Section 1-09.6(3), excluding the 21% markup;
 - c. Direct Equipment: Limited to the amount calculated in accordance with Section 1-09.6(4), excluding the 21% markup. The claim shall include the actual cost for each piece of equipment used in connection with the claimed amount or, in the absence of actual cost, the rates contained in the AGC/WSDOT Equipment Rental Agreement in effect when the Work was performed. The amounts claimed for any piece of equipment shall not exceed the rates contained in that Equipment Rental Agreement even if the actual cost for such Equipment is greater. The Engineer may audit the Contractor's cost records as provided in Section 1-09.12 to determine actual equipment costs. The Contractor's claim shall include the following information for each piece of equipment:
 - (1) detailed description (e.g., Motor Grader Diesel Powered Caterpillar 12 "G", Tractor Crawler ROPS & Dozer Included Diesel, etc.);
 - (2) the hours of use or standby; and
 - (3) the specific Day(s) of use or standby.

- d. Overhead and Profit: Markups for Project overhead, general company overhead, bonding, insurance, Business & Occupation tax, and profit shall not exceed the markups allowed in Section 1-09.6;
 - e. Subcontractor Costs: Payments Contractor makes to Subcontractors at any tier for performing Work included in the claim. This cost shall be calculated and itemized in the same manner prescribed for the Contractor.
 - f. Equipment Mobilization: If necessary equipment is not on the Project Site and it was not anticipated that the equipment would be required for the performance of other Work under the Contract, the amount for mobilization, as provided in Section 1-09.6(6);
 - g. If the claim relates to an alleged delay or other change in the Contract Time, the Contractor shall demonstrate the impact on the critical path of the accepted critical path schedule in effect at the time of the occurrence giving rise to the claim;
 - h. Other categories as specified by the Contractor;
 - i. What the changes to Contract Time and cost were as compared to doing the disputed Work without the Engineer directing, instructing, interpreting, or determining to change the Work; and
11. A notarized statement containing the following language:

"STATE OF WASHINGTON)
) SS.
THE COUNTY OF KING)
The undersigned, _____
_____, of _____
(title) (company)

being first duly sworn on oath, deposes and says:

The claim for extra compensation and/or time made herein for work on this Contract is a true statement of the actual costs incurred and/or time sought, and is fully documented and supported as required by the Contract between the parties.

Dated _____/s/ _____

Subscribed and sworn before me this _____ day of _____

Notary Public in and for the State of Washington
residing at _____
My appointment expires _____

It is the responsibility of the Contractor to keep full and complete records of the actual additional costs and the actual additional time incurred for any alleged claim. The Contractor shall permit the Engineer complete and unrestricted access to these records and any other records as may be requested by the Engineer to determine the facts or contentions involved in the claim. The Contractor shall retain these records for a period of not less than three years after the Completion Date.

The Contractor shall only pursue administrative resolution of any claim with the Engineer or the designee of the Engineer.

The Contractor shall provide to the Engineer, a written statement detailing the actual adjustment requested in cost, or Contract Time, or both cost and Contract Time before final payment is released. Failure to submit such information and details as described for any claim shall operate as a waiver of the claims by the Contractor

Provided that the Contractor has fully complied with all the provisions of this Section, the Engineer will respond to the claim by written notice to the Contractor as follows:

1. within forty-five (45) Working Days from the date the claim is filed if the claim amount is less than \$50,000;
2. within ninety (90) Working Days from the date the claim is filed if the claim amount is equal to or greater than \$50,000; or
3. if the Engineer determines that the above constraints are unreasonable due to the complexity of the claim under consideration, the Engineer will notify the Contractor within fifteen (15) Working Days from the date the claim is filed as to the amount of time which will be necessary for the Engineer to prepare its response.
4. If the Engineer fails to provide written notice within the time periods set forth above, the claim shall be deemed to have been denied and the Contractor may proceed to mediation in accordance with Section 1-04.5(4).

Full compliance by the Contractor with the provisions of this Section is a condition precedent to the Contractor's right to pursue mediation or to seek judicial relief.

1-04.5(4) MEDIATION

If the Engineer denies the claim the Contractor shall, within thirty (30) Days of receiving the Engineer's written notice of denial and prior to the initiation of any judicial proceedings, file a written notice in accordance with Section 1-05.15 of the decision to mediate its claim with a mutually acceptable mediator. The date the Contractor's written notice is received by the Engineer shall be the date of filing the written notice. The failure to file the written notice within the time period stated above shall result in the Engineer's decision rendered in accordance with Section 1-04.5(3) being final and binding on the Contractor and all its Subcontractors. The Contractor shall not be allowed to change the scope of the claim as originally presented. The mediation will occur within sixty (60) Days of the filing of the Contractor's written notice to mediate unless both the Contractor

and the Engineer agree to a later date. Each party may be represented at the mediation by lawyers. The parties shall each bear their respective costs incurred in connection with this procedure, except that they shall share equally the fees and expenses of the mediator and the costs of the facility for the mediation. If mediation does not resolve the disputed matter, the Contractor may pursue judicial resolution as provided in Section 1-04.5(5).

1-04.5(5) LITIGATION

If mediation does not resolve the disputed matter, the Contractor may serve and file a lawsuit in the Superior Court of King County, Washington. Such lawsuit shall be filed within one hundred eighty (180) Days of the Physical Completion Date. This requirement cannot be waived except by an explicit waiver signed by the Owner. The failure to file a lawsuit within the 180 Day period shall result in the Engineer's decision rendered in accordance with Section 1-04.5(3) being final and binding on the Contractor and all its Subcontractors.

Actions by the Contractor against the Owner or between the Contractor and its Subcontractors arising out of a common set of circumstances shall, upon demand by the Owner, be submitted in a single forum or the Owner may consolidate such claims or join any of the above-named parties in the same forum.

1-04.5(6) AUDITS

All claims by the Contractor for additional compensation shall be subject to audit in accordance with Section 1-09.12. In the event of an audit the Contractor shall make available to the Owner all documents that the Engineer requests within seven (7) Days of a written notice from the Engineer. Failure of the Contractor or a Subcontractor of any tier, to maintain or retain sufficient records to allow the Owner to verify all or a portion of the claim or to permit Owner access to the books and records of the Contractor, or Subcontractor of any tier, shall constitute a waiver of the portion of the claim that cannot be documented and shall bar any recovery for any portion of a claim that cannot be documented.

1-04.6 INCREASED OR DECREASED QUANTITIES

Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantities of Work vary from the original Bid quantities, payment will be at the Bid item prices for accepted Work unless the total quantity of any Bid item increases or decreases by more than 25 percent from the amounts contained in the Bid. In that case, the following adjustments will be made:

1. **Increased Quantities:** The Contractor will be entitled to an equitable adjustment for that portion of the actual quantity in excess of 125 percent of the original Bid quantity. The price for increased quantities will be determined by agreement of the parties or, where the parties cannot agree, by the Engineer based upon the actual costs to perform the Work, including reasonable markup for overhead and profit.
2. **Decreased Quantities:** The Contract will be equitably adjusted if the actual quantity of Work is less than 75 percent of the original Bid quantity. The equitable adjustment in the case of decreased quantities shall be based upon any increase or decrease in costs due solely to the variation of the estimated quantity. The total payment for any Bid item will be limited to no more than 75 percent of the amount originally Bid for the Bid item.
3. **Adjustment Limits:** The following limitations shall apply to the adjustment:
 - a. The Equipment rates shall be actual cost but shall not exceed the rates set forth in the AGC/WSDOT Equipment Rental Agreement in effect at the time the Change Order Work is performed as referenced to in Section 1-09.6.
 - b. No payment will be made for extended or unabsorbed home office overhead and field overhead expenses to the extent that there is an unbalanced allocation of such expenses among the Contract Bid items.
 - c. No claim for consequential damages will be allowed because of any variance in quantities from those originally shown in the Contract.

When ordered by the Engineer, the Contractor shall proceed with the Work pending determination of the cost or time adjustments for the variation in quantities.

The Owner will not adjust for increases or decreases if the Owner has entered the amount for the item in the Bid Form only to provide a common basis for Bidders.

1-04.7 DIFFERING SITE CONDITIONS "CHANGED CONDITIONS"

If the Contractor encounters:

1. pre-existing subsurface or latent physical conditions at the Project Site differing materially from those indicated in the Contract; or
2. pre-existing unknown physical conditions at the Project Site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract,

Then, the Contractor shall, on the date of discovery or promptly the next Working Day and before such conditions are disturbed, provide written notice to the Engineer of the conditions encountered. Upon notification, the Engineer will promptly investigate the alleged changed condition. If the Engineer finds that conditions are materially different and cause a material increase or decrease in the Contractor's cost of, or the time required for, performing all or any part of the Work, whether or not changed as a result of such conditions, the Engineer will make an equitable adjustment in the payment or the time required for the performance of the Work. Extensions of time will be determined in accordance with Section 1-08.8. The equitable adjustment will be by agreement with the Contractor. However, if the Engineer and Contractor are unable to agree, the Engineer will determine the amount of the equitable adjustment in accordance with Section 1-09.4.

If the Engineer determines that differing site conditions do not exist, the Contractor will be so notified by written notice. Should the Contractor disagree with such determination, the Contractor may file a written notice of dispute with the Engineer pursuant to the requirements of Section 1-04.5. The Contractor shall proceed with the Work unless ordered to suspend that portion of the Work pending a decision as to the validity of any differing site conditions claim, or pending the execution of a Change Order, if the Engineer approves a claim for differing site conditions.

No claim of differing site conditions will be allowed unless the Contractor has given the written notice required above; provided, however, the time for giving the written notice may be extended by the Engineer for good cause. Time extensions will be evaluated pursuant to Section 1-08.8. The time for giving written notice will not be extended beyond the time the Contractor knew, or should have known, of the existence of the differing site condition. If there is a decrease in the cost or time required to perform the Work, failure of the Contractor to notify the Engineer of the differing site condition shall not affect the Engineer's right to make an adjustment in costs or time.

No claim by the Contractor for an equitable adjustment hereunder will be allowed unless:

1. The Contractor has followed the claim procedures provided in Section 1-04.5, and
2. The claim is asserted in accordance with Section 1-04.5(3).

1-04.8 PROGRESS ESTIMATES AND PAYMENTS

Engineer-issued progress estimates or payments for any part of the Work shall not be used as evidence of performance or quantities. Progress estimates serve only as a basis for making payments. The Engineer may revise progress estimates in accordance with Section 1-09.9(4).

1-04.9 USE OF BUILDINGS OR STRUCTURES

Any building or Structure within the Right of Way that is not to remain during the Work or that may be used by the Contractor will be indicated in the Contract.

1-04.10 USE OF MATERIALS FOUND ON THE PROJECT SITE

With written approval of the Engineer, the Contractor may use on the Project Site:

1. Stone, gravel, sand, or other Mineral Aggregates obtained from on-site excavations.
2. Timbers removed in the course of the Work.

Approval to use these materials will be granted provided the Materials satisfy the requirements of the Contract, and are not required for other use by the Contract or for use as selected Materials.

The order of disposal for suitable materials obtained in the course of the Work shall be as follows unless the Engineer approves otherwise:

1. Used as selected material, pursuant to Section 2-03.3(10).
2. Delivered to the Engineer as salvage pursuant to Section 2-02.3(7).
3. Disposed of in accordance with Section 2-01.2.

1-04.11 ROADSIDE CLEANUP AND FINAL CLEANUP

From time to time or as may be ordered by the Engineer during the prosecution of the work, the Contractor shall cleanup and remove debris, refuse, and discarded materials of any kind resulting from the Work.

Disposal of waste shall be in accordance with Section 1-07.3.

The Contractor shall also perform final cleanup as provided in this Section. The Engineer will not establish the Physical Completion Date until final cleanup is completed. The street Right of Way, Material sites, quarry or pit sites, borrow sites, sites used for temporary waste storage, and all other areas the Contractor occupied to do the Work shall be left neat, clean, and presentable. The Contractor shall not remove warning, regulatory, or guide signs unless approved otherwise in writing by the Engineer. Failure to do the final cleanup may result in the final cleanup and disposal being done by the Owner and the cost thereof charged to the Contractor.

The Contractor shall at a minimum :

1. Remove and dispose all rubbish, surplus Materials not identified as salvage by the Owner, discarded Materials, falsework, piling, camp buildings, temporary structures, Equipment, and debris;
2. Remove from the Project Site, all unneeded rock, aggregate and similar material left from grading, surfacing, or paving unless the Contract specifies otherwise or the Engineer approves otherwise;
3. On all concrete and asphalt pavement Work, flush the pavement clean and dispose of the wash water and debris;
4. Sweep and flush structure decks and properly dispose of wash water and debris;
5. Clean out from all Culverts and drains, inlets, catch basins, manholes and Water Main valve chambers, within the limits of the Project Site, all dirt and debris of any kind that results from Contractor's operations;
6. Level and fine grade all excavated material not used for backfill where the Contract requires;
7. Fine grade all slopes and around all Structure piers, bents, and abutments;
8. Ensure that the final cleanup of clearing and grubbing disposal sites and borrow sites (Sections 2-01.2 and 2-03.3(13)), and any temporary waste sites created by the Contractor, is in accordance with the requirements specified in the Grading Ordinance, permits, property agreements, and the Contract;
9. Upon completion of grading and cleanup operations at any privately-owned site for which a written agreement between the Contractor and property owner is required, the Contractor shall obtain and furnish to the Engineer a written release from all damages, duly executed by the property owner, stating that the restoration of the property has been satisfactorily accomplished.

All costs associated with cleanup and disposal shall be incidental to the Work and shall be included in the various Bid items in the Bid and at no additional cost to the Owner.

SECTION 1-05 CONTROL OF WORK

1-05.1 AUTHORITY OF ENGINEER

The Engineer shall be satisfied that all Work is being done in accordance with the requirements of the Contract. The Contract gives the Engineer authority over the Work. Whenever it is so provided in this Contract, the decision of the Engineer shall be final, provided that such decision may be challenged in accordance Section 1-04.5.

The Engineer's decisions will be final on all questions including, but not limited to, the following:

1. Quality and acceptability of Materials and Work;
2. Measurement of Bid item Work;
3. Acceptability of rates of progress on the Work;
4. Interpretation of the Contract;
5. Determination as to the existence of differing site conditions;
6. Fulfillment of the Contract by the Contractor;
7. Payments under the Contract including equitable adjustments;
8. Suspension of the Work;
9. Determination as to Unworkable Days;
10. Reviews of submittals; and
11. Determination of Notice to Proceed Date, Substantial Completion Date, and Physical Completion Date (See Section 1-01.3.)

If the Contractor fails to respond promptly to the requirements of the Contract or orders from the Engineer:

1. The Engineer, per Section 1-05.8, may use the Engineer's forces, other Contractors, or other means to accomplish the Work; and
2. The Owner, per Section 1-09.9(3), will not be obligated to pay the Contractor, and will deduct from the Contractor's payments, additional costs above the Contractor's bid prices that result when any other means must be used to carry out the Contract requirements or Engineer's orders.

At the Contractor's risk, the Engineer may suspend, per Section 1-08.6, all or part of the Work, if:

1. The Contractor fails to fulfill Contract terms, to carry out the Engineer's orders, or to correct unsafe conditions of any nature;
2. The weather or other conditions are unsuitable; or
3. It is in the public interest.

Nothing in the Contract requires the Engineer to provide the Contractor with direction or advice on how to do the Work. If the Engineer approves or recommends any method or manner for doing the Work or producing Materials, the approval or recommendation shall not:

1. Guarantee that following the method or manner will result in compliance with the Contract;
2. Relieve the Contractor of any risks or obligations under the Contract; or
3. Create any liability for the Owner.

1-05.2 AUTHORITY OF ASSISTANTS AND ELECTRICAL SAFETY OBSERVER

1-05.2(1) AUTHORITY OF ASSISTANTS

The Engineer may appoint Assistants to assist in determining if the Work complies with the Contract. Assistants have the authority to reject defective material and suspend Work that is being done improperly, subject to the final decision of the Engineer. Assistants may exercise such additional authority as may be delegated to them by the Engineer. An Assistant is not authorized to approve or accept any Work or Materials, or to issue instructions or advice, contrary to the provisions of the Contract.

Work performed or Materials furnished that at any time is found not to conform to the Contract shall be at the Contractor's risk and shall not be a basis for a claim, although an Assistant purports to change the Contract to provide for such Work or Material, to approve or accept such Work or Material, or issue any instructions contrary to the Contract.

Although Assistants may advise the Contractor of any faulty Work or Materials or infringements of the terms of the Contract, failure of the Engineer or Assistant to do so shall not constitute acceptance or approval.

1-05.2(2) AUTHORITY OF ELECTRICAL SAFETY OBSERVER

The Engineer will assign an Electrical Safety Observer when Work is performed in a substation; in a switchyard; in an energized vault; at other locations containing high voltage lines or equipment; when installing ducts and vaults in the vicinity of energized underground electrical transmission or distribution system; or when any excavation is within fifteen (15) feet of an energized electrical transmission or distribution system as indicated by "marked for locate" per Section 1-07.17(1); or as otherwise deemed necessary by the Engineer.

The only exception shall be when the Contract specifies, and contains a Bid item, that the Contractor provides a qualified Contractor's Electrical Safety Observer who is approved by SCL.

When the Work includes a substation, or a switchyard, or an energized vault, or Work within two (2) feet of an underground energized electrical distribution or transmission system, the Contractor shall provide a minimum seven (7) Working Days advance notice request for an Electrical Safety Observer. See Section 1-07.28 for notification requirements.

The Contractor shall provide an adequate description of the Work to be performed, equipment to be used, and the Work duration. When the Contractor, or its Subcontractor, does not schedule work on a specific Day or Days, the Contractor shall provide one (1) Working Day advance notice unless arranged otherwise with the Electrical Safety Observer. Failure to inform the Electrical Safety Observer, at least one (1) Working Day in advance of a change in the Contractor's schedule where an Electrical Safety Observer is not required, will result in the Owner backcharging the Contractor for the Electrical Safety Observer's services at the site.

The Electrical Safety Observer's involvement with site safety shall be limited to electrical safety, unless the Contract indicates otherwise. The Electrical Safety Observer will notify the Contractor of electrical hazards and may instruct, warn, and if necessary, direct Contractor and Subcontractor personnel to move a safe distance from electrical system components. In addition to all other rights of the Owner and Engineer, the Electrical Safety Observer shall have the authority, but not the duty, to stop Work if the Electrical Safety Observer judges that there is any hazard that immediately imperils life, health, or property.

The Contractor shall have sole responsibility for safety pursuant to the Contract. The presence or absence of an Electrical Safety Observer shall not alter the Contractor's responsibility for the occupational health and safety of individuals on the Project Site and shall not relieve the Contractor of any of its legal obligations for worker safety.

The Contractor shall designate a Contractor's On-Site Electrical Lead and shall ensure that each Subcontractor designates a Subcontractor's On-Site-Lead when Work requires an Electrical Safety Observer. The On-Site Electrical Lead shall be authorized to resolve safety-related issues raised by the Engineer, Assistant, or Electrical Safety Observer. The Contractor shall ensure that such On-Site Electrical Lead is physically present at the work requiring an Electrical Safety Observer. Each On-Site Electrical Lead, whether Contractor's or Subcontractor's, shall identify himself or herself to the Electrical Safety Observer at the briefing/tailgate conference.

At the briefing/tailgate conference on each Day when an Electrical Safety Observer is required, the Contractor shall notify the Electrical Safety Observer of the work to be performed requiring an Electrical Safety Observer. Each On-Site Electrical Lead, or Contractor's or Subcontractor's onsite supervisory representative, shall complete and sign the Safety Watch Checklist and Certification of Training form provided by the Electrical Safety Observer before work begins for which an Electrical Safety Observer is required.

1-05.3 SUBMITTALS

1-05.3(1) GENERAL

The City encourages the use of environmentally friendly Materials. Whenever practicable, the Contractor shall use recycled and reusable products including recycled content paper on all documents submitted to the Owner or to the Engineer.

Section 1-05.3 does not address submittals or other documentation required by the Owner.

Section 1-05.3 addresses submittals required by the Engineer. See Section 1-08.3(2) for a list of the initial submittals the Contractor shall transmit to the Engineer. Each submittal shall be complete and in sufficient detail to allow the Engineer ready determination of compliance with Contract requirements.

Guaranty and warranty are addressed in Section 1-05.10.

A lump sum breakdown submittal (Section 1-09.3(2)) shall be submitted in accordance with this Section. Payment for any progress estimate that includes a lump sum Bid item, where more than one progress estimate is required to pay for that lump sum Bid item, will not be made until the required lump sum breakdown is submitted to, and accepted by, the Engineer.

Unless the Contract specifies otherwise:

1. The Contractor shall coordinate the scheduling, sequencing, preparing, and processing of submittals with the scheduling of and performance of the Work so that Work shall not be delayed by submittal processing. Failure to timely provide submittals required by the Contract may be cause for the Owner to withhold Contractor payments as specified in Section 1-09.9(3).
2. The Contractor shall prepare and update a Submittal Control Document in accordance with Section 1-05.3(9).
3. To better coordinate the progress of Work, submittals for related portions of the Work shall be submitted at the same time.
4. Submittals dependent on conditions, equipment or material presented in other submittals may be returned "Rejected" or "Revise and Resubmit" or "Make Correction Noted" as described in Section 1-05.3(4).
5. See Section 1-06.1 for the approval of material or equipment under "or equal" terms. The Contractor shall allow an additional ten (10) Working Days for the Engineer to review "or equal" submittals. Submittals requesting "or equal" approval shall identify the "or equal" items on the submittal cover sheet and shall contain sufficient documentation to ensure compliance with Contract requirements.
6. The Contractor forfeits any claim to compensation for extra costs or additional Contract Time associated with processing of or responding to requests for approval of "or equal" material or equipment, or resubmittals as specified in Section 1-05.3(4).
7. Each submittal copy shall have a submittal cover sheet as specified in Section 1-05.3(2).

The Contractor shall coordinate assembly of all submittals, including, but not limited to, those prepared by Subcontractor, Materialperson, manufacturer, or Professional Engineer. The Contractor shall examine and verify all submittals for accuracy, completeness, and compliance with Contract requirements before transmitting the submittal to the Engineer.

The Contractor shall sign a submittal cover sheet (Submittal Review Form) for each submittal item, thereby accepting responsibility for the correctness and completeness of the submittal. A copy of the Submittal Review Form is included in the Appendix of the Project Manual; however, the Contractor's standardized submittal transmittal form will be considered acceptable if the information provided meets the minimum requirements specified for "submittal cover sheet" in this Specification. One submittal cover sheet shall be filled out by the Contractor for each submittal item.

The Contractor shall retain a copy of each submittal returned by the Engineer at the Project Site, and shall allow the Engineer to see the returned submittal when requested by the Engineer.

1-05.3(2) SUBMITTAL COVER SHEET

Unless the Contract specifies otherwise, each submittal shall have a cover sheet. Multiple submittals without one submittal cover sheet for each submittal will be rejected. The submittal cover sheet may be a Contractor's standard form; however, the cover sheet shall, as a minimum, contain the following information:

1. Be numbered consecutively with a whole number beginning with "1". Where a resubmittal is required, the resubmittal shall be labeled with the same whole and "resubmittal decimal number". [Example – "Submittal no. 7"; "Resubmittal no. 7.1", "Resubmittal no. 7.2", etc.].
2. Contractor's name and address, and if not prepared by the Contractor, this information shall be supplemented with "prepared by" information, i.e., Subcontractor, Materialperson, manufacturer, or Professional Engineer who prepared the submittal, and that entity's name and address.
3. The title of the Project and PW# (public works number located on first page of Agreement Form).
4. Transmittal date of submittal.
5. Submittal description (see Section 1-05.3(6). If a resubmittal, a copy of the original submittal returned by the Engineer shall be included.
6. Contract reference(s) (Standard Specification Section(s), or Project Manual Specification Section(s), or Drawing sheet number(s), or Detail(s) on Drawings, or Note(s) on Drawings, etc.).
7. Bid item applicable or intended use.
8. As the Contract may require and other information for the Engineer's review.
9. A statement that the Contractor has reviewed and verified submittals by Subcontractor, Materialperson, manufacturer, and Professional Engineer meet Contract requirements.
10. Where a variation or clarification or verification or explanation or extra information is requested, such shall be clouded or highlighted on the cover sheet.
11. If submittal, or portion thereof, is prepared by a Professional Engineer, then provide such information as specified in Section 1-05.3(12).
12. Each submittal cover sheet shall have a clear space of no less than 2 inch by 3 inch for the Engineer's review stamp. In addition, Shop Drawings shall each also have a clear space of no less than 2 inch by 3 inch for the Engineer's review stamp preferably located in the lower, right-hand corner of each Shop Drawing sheet.

A sample submittal cover sheet will be located in the Appendix of the Project Manual.

1-05.3(3) CONTRACTOR SUBMITTAL DELIVERY, TIMELINES, NUMBER OF COPIES, BID ITEM REFERENCES, AND EXTRA SUBMITTALS

Submittal delivery: At the pre-construction conference, the Engineer may make other arrangements with the Contractor on various type submittal delivery methods.

All submittals and resubmittals shall be directed to the Engineer. The Engineer will date stamp the submittal cover sheet when the complete submittal is received by the Engineer on a Working Day before 2:00 PM pacific time. Submittals received on or after 2:00 PM will be date stamped the following Working Day.

Delivery in person: All non-bulk sample submittals:
 SPU Construction Management Front Desk
 Seattle Municipal Tower
 700 Fifth Avenue, 47th Floor
 Seattle, WA. 98124
 (206) 684-5068

Delivery by mail: All non-bulk sample submittals:
 SPU Construction Management
 Seattle Municipal Tower
 P.O. Box 34018
 Seattle, WA. 98124-4018
 (206) 684-5068

Delivery by Fax (206) 684-8581

Bulk sample submittals, unless the Engineer agrees otherwise at the Preconstruction Conference, include Mineral Aggregate, Hot Mix Asphalt, geotextile, pipe, and similar. Such samples shall be delivered to:
 SPU Materials Laboratory

707 South Plummer Street
 Seattle, WA 98134
 (206) 386-1800

Number of submittal copies:

Submittals shall consist of an original and 8 copies. Also see Section 1-05.3(10) Shop Drawings.

Resubmittals shall consist of an original and 8 copies, all showing required upgrade.

See Section 1-05.3(7) Submittal Return, for number of copies the Engineer returns.

Submittal Timelines: Unless otherwise specified in this Specification, the Contractor shall allow the Engineer ten (10) Working Days to review and to return the submittal to the Contractor.

Submittal timelines shall begin on the date stamped by the Engineer on the submittal cover sheet.

The Contractor shall timely transmit submittals to meet Contract Time, and shall take into consideration the possibility of resubmittal.

See Section 1-05.3(7) for Engineer submittal return process and timeliness.

1-05.3(4) RESUBMITTALS

Submittals returned to the Contractor marked "Rejected" or "Revise and Resubmit" will include Engineer comments for requiring a resubmittal. The Contractor shall address the Engineer's comments in its resubmittal, and the Contractor's correction shall be clearly identified in the resubmittal to assist the Engineer's review.

Unless the Contract specifies otherwise, submittals returned by the Engineer marked "Rejected" or "Revise and Resubmit" shall require a new submittal ("resubmittal") and shall be considered a new submittal as specified in Section 1-05.3(1) with new timelines as specified in Section 1-05.3(3). No extension of Contract Time will be allowed for resubmittals.

The cover sheet for resubmittals shall be clearly labeled "RESUBMITTAL", and shall include a copy the original returned submittal cover sheet including all Engineer comments

Resubmittals not conforming to these Specifications will be rejected, and shall be resubmitted until the Engineer determines the submittal conforms to these Specifications.

1-05.3(5) CONTRACTOR'S REQUESTS FOR INFORMATION AND SUBMITTAL DEVIATION

Contractor requests for written clarification on whether an item of Work requires a submittal shall be made, in writing, prior to or with the Contractor's Submittal Control Document, in accordance with Section 1-05.3(9).

The Engineer's review of requests for written clarification or submittal deviations shall not relieve the Contractor from responsibility for the submittal timeline requirements of the Contract, nor will review by the Engineer relieve the Contractor from responsibility for errors or omissions in submittals, or from responsibility for having complied with the provisions of Section 1-05.3.

The Appendix of the Project Manual will contain a copy of the Engineer's required written notice form titled:

"Request for Information/
 Design Clarification/Variation Request"

Each Contractor's Request for Information or Design Clarification/Variation shall contain this form, supplemented with other appropriate information as may be specified elsewhere and as may apply.

Such information request submittal found to contain error, or unapproved deviation or variation from the Contract, may be determined by the Engineer to be out of compliance with the Contract. The Contractor agrees that any costs and any delay associated with a non-conforming information request are the Contractor's sole responsibility and agrees that the Engineer has no requirement to extend Contract Time or to make additional payments of any kind.

If the Contractor considers any comment by the Engineer on the returned Contractor's extra information request submittal to constitute a Change Order, the Contractor shall make such written notice in accordance with Section 1-04.4.

Deviation From Returned Submittal: Where the Contractor intends to change, or deviate from, a previously reviewed submittal returned by the Engineer, the Contractor shall resubmit the originally reviewed submittal to the Engineer for additional review indicating the proposed changes or deviations from the originally reviewed submittal and shall clearly state reasons, additional calculations, additional details, as necessary to support such need for change or deviation.

Substitution: All materials, equipment, equipment assemblies, or methods proposed by the Contractor as a substitution for a specified item on an "or equal" basis shall be addressed in the submittal.

In making a request for substitution, in addition to the requirements in Section 1-06.1 and the Specification Section addressing the material or equipment or equipment assembly, the Contractor's submittal shall demonstrate the proposed substitution:

- (1) Is equal or superior in all respects to the material or equipment specified; and,
- (2) Has the same guarantee or warranty as the item specified

The Contractor shall waive all claims for additional cost and extension of time related to the substituted item .

1-05.3(6) TECHNICAL SUBMITTAL DESCRIPTIONS

Where a submittal contains information with more than one option (catalog cut, manufacturer's written instructions, recognized trade association standard, "specified designation", etc.), the option applicable to the submittal shall be clouded or highlighted.

Unless specified otherwise in the Contract, submittals shall have descriptions as follows.

- 1) Shop Drawings: See Section 1-05.3(10).
- 2) Product Data: Includes catalog cuts, illustrations, schedules other than as required by Section 1-08.3(1), diagrams, performance charts, instructions, and brochures illustrating size, physical appearance, and other characteristics of Materials or equipment for some portion of the Work. Also includes warranties when the Contract requires extended product warranties.

Where Product Data submitted is incomplete in describing compliance with all specified requirements, supplement with material prepared for the project that completes the information required by the Contract.

Product Data dimensions submitted shall match the dimensions indicated in the Contract (for example – English units = pounds, feet, etc., metric units = kilograms, centimeters, etc.).

Product Data shall include manufacturer's name, trade name, place of manufacture, and catalog model or number.

Measurement referencing designated standards organization's standards specified in the Contract shall be included in the Product Data. If such information is not in the Product Data, then such measurement shall be provided as specified in Section 1-06.5.

- 3) Samples: Includes physical samples of Mineral Aggregate, Material, equipment, and workmanship that illustrate functional and aesthetic characteristics of a product, and establish standards by which the Work can be judged.

Size or number of sample shall be as specified in the submittal Specification.

Color and similar type samples from the Materialperson to be used in selecting or approving colors for the applicable portion of the Work.

Field samples and mock-ups constructed on the Project Site to establish standards by which applicable portions of the Work can be evaluated.

Where samples show a range of variation that are unavoidable due to the nature of the material, the sample size shall include at least three (3) units showing the extremes and middle of the range.

- 4) Design Data: Several Standard Specifications require, and the Contract may specify, calculations, mix designs, analyses, or other data pertaining to a portion of the Work.
- 5) Test Reports: Report signed by authorized professional of private testing laboratory or certified individual that a Material, product or system identical to the material or product or system to be provided has been tested in accordance with specified requirements. May also include findings of a report on an actual portion of the Work or prototype prepared for the project before shipment to Project Site. May also include a finding of a test of a portion of Work at, or a sample of the Work taken from, the Project Site, and may be during or after installation. May also be an investigative report, a checklist, or an operational test procedure.
Also see Section 1-06.5.
- 6) Manufacturer's Certificate of Compliance: See Section 1-06.3.
- 7) Manufacturer's Written Instruction: Preprinted material describing installation of a product, system or Material, including special notices and Material Safety Data Sheets (MSDS) concerning impedances, hazards and safety precautions.
- 8) Operational Testing, and Operations and Maintenance Manual: See Section 1-05.11(3).
- 9) Critical Path Schedule: See Section 1-08.3(1).
- 10) As-Built Drawings: See Section 1-05.3(11).
- 11) Submittal Prepared By Professional Engineer: See Section 1-05.3(12).

1-05.3(7) ENGINEER'S SUBMITTAL REVIEW, ACTIONS POSSIBLE, AND SUBMITTAL RETURN

The Engineer's submittal review is to ensure compliance with the requirements of the Contract. The Engineer's review shall not extend to consideration of the integrity of the Contractor's means, methods, techniques, sequences or procedures of construction or to safety precautions or programs incident thereto, except where a specific means, method, technique, sequence, or procedure of construction is required or prohibited by the Contract or a regulatory agency. Engineer review of a separate Bid item does not indicate approval of the assembly in which the Bid item functions. The Contractor is responsible for confirming and correlating all dimensions; fabrication and construction techniques; coordinating the Contractor's Work with that of all other trades; and the satisfactory performance of the entire Work in strict accordance with the Contract.

Actions possible: The Engineer will include on the returned submittal a list of options. Only one of the options will be checked. Unless the Contract specifies otherwise, the following notations shall be interpreted as follows:

- 1) **"No Exception Taken"**: Submittals returned and marked "No Exception Taken" authorize the Contractor to proceed with the portion of the Work, proceed with the fabrication, or to obtain Materials or equipment, as contained in the submittal. Where more than one submittal is required for a portion of the Work or for a greater portion of Work containing the submittal portion, no portion of Work shall proceed until all submittals required of that Work portion are returned by the Engineer without requiring resubmittal.

The Contractor shall not revise in any way, a portion of the Work or fabrication based on submittal returned "No Exception Taken". Revisions shall only be made in compliance with the requirements of Section 1-05.3(5).

- 2) **"Rejected" or "Revise and Resubmit":** Submittals returned and marked "Rejected" or "Revise and Resubmit" indicate the submittal is incomplete or does not comply with Contract requirements, and shall be resubmitted with appropriate changes. Submittals that are carelessly prepared or erroneous or illegible or lacking the Contractor's approval, are non-conforming and must be resubmitted.
- 3) **"Make Corrections Noted":** Submittals returned and marked "Make Corrections Noted" authorize the Contractor to proceed with the portion of Work covered by the submittal with the correction noted. Before beginning such Work, the Contractor shall resubmit eight (8) copies of such submittal showing the noted correction. Should such correction not appear in the applicable portion of the Work, that portion of Work will be determined as unauthorized Work as specified in Section 1-05.7.
- 4) **"Submit Specified Item":** Submittals returned and marked "Submit Specified Item" indicate an incomplete submittal and do not authorize the Contractor to perform that portion of the Work. The "specified item" must be resubmitted in accordance with Section 1-05.3(4).

Submittal return: The Engineer will return two (2) copies of a submittal to a location and by a method agreed to by the Engineer at the pre-construction conference. If no agreement is reached, the submittals will be returned to the Contractor's business address.

1-05.3(8) ACTIONS BY CONTRACTOR BEFORE SUBMITTAL RETURN BY ENGINEER

Unless the Contract specifies otherwise, the Contractor shall not purchase any Material's or equipment for incorporation into the Work, or begin fabrication of any Work requiring a submittal, until the Contractor has received an approved submittal for such portion of the Work.

1-05.3(9) SUBMITTAL CONTROL DOCUMENT

The Contractor shall reference its critical path schedule in effect at the time of the submittal.

At the pre-construction conference, the Contractor shall be prepared to discuss the nature and timelines of all submittals as they relate to the various portions of the Work, to the Bid items, and to the proposed progress schedule.

Unless the Contract specifies otherwise, for Bid Documents indicating Contract Time of less than two hundred (200) Working Days, the Contractor shall prepare and submit to the Engineer within fourteen (14) Days after the Notice to Proceed Date, a submittal control document in duplicate, listing all submittals and when these submittals shall be delivered to the Engineer.

For Bid Documents indicating Contract Time of two hundred (200) Working Days or more, the Contractor shall prepare and submit to the Engineer within thirty (30) Days after the Notice to Proceed Date, a submittal control document in duplicate, listing all submittals and when these submittals shall be delivered to the Engineer. The only exception is for portions of the Work scheduled to begin within the first sixty (60) Working Days. All submittals required for such Work shall be submitted at least ten (10) Working Days before that portion of Work is scheduled to begin.

The submittal control document shall identify the portions of the Work and Bid items that contain "or equal" substitutions (see Sections 1-05.3(6) and 1-06.1).

The submittal control document shall be coordinated with the Work and with the proposed progress schedule as discussed at the preconstruction conference (see Section 1-08.1(2)). The data in the submittal control document shall not relieve the Contractor of the obligation to comply with the requirements regarding Contract Time. The Contractor shall review the submittal control document at least every thirty (30) Days, update or correct the submittal control document as necessary, and shall submit eight (8) copies of the updated or corrected document to the Engineer along with any revised critical path schedule.

1-05.3(10) SHOP DRAWINGS

1-05.3(10)A GENERAL

The Contract may require portions of the Work be supplemented by Shop Drawings to detail and illustrate those portions of the Work. Shop Drawings shall be prepared by the Contractor, and may require additional preparation by a Subcontractor, Materialperson, or Professional Engineer when applicable.

1-05.3(10)B SHOP DRAWING SIZE AND LAYOUT

Shop Drawings may be on 24 x 36 sheets or, if adequately clear to the Engineer, on smaller sheets sized 8-1/2 x 11, or 8-1/2 x 14, or 11 x 17 as appropriate – all dimensions in inches.

The original shall be a reproducible original set such as mylar. Other types of reproducibles will be accepted provided they are on clear and permanent type material and the Engineer can readily produce copies and be suitable for microfilming (e.g., reprographic Mylar base film).

1-05.3(10)C SHOP DRAWING SUBMITTAL DETAILS

Before submittal of Shop Drawings, the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, Materials, catalog numbers and similar data and reviewed or coordinated each Shop Drawing with other Shop Drawings and with the requirements of the Contract. Also see Section 1-04.2 regarding the precedence of figured and scaled dimensions.

Copies of the Drawings and of Standard Plans as substitute for Shop Drawings will be rejected and shall require resubmittal.

1-05.3(10)D SHOP DRAWINGS VARYING FROM CONTRACT REQUIREMENTS

Submittal of a Shop Drawing that varies from the Contract requirements shall be considered as a request for submittal deviation and shall comply with the requirements of Section 1-05.3(5).

1-05.3(10)E SPECIFICATIONS REQUIRING SHOP DRAWING SUBMITTALS

Except as otherwise provided in the Contract, the following listed Specification Sections of the Standard Specifications contain Shop Drawing submittal requirements that may or may not be applicable to the Work in the Contract:

DIVISION 2 EARTHWORK

2-09.3(3)D Shoring and Cofferdams

DIVISION 6 STRUCTURES

6-01.9 Structures, General Requirements
 6-02.3(13)A Expansion Joints
 6-02.3(13)B Compression Seal
 6-02.3(16) Plans for Falsework and Forms
 6-02.3(17) Falsework and Forms
 6-02.3(24)A Reinforcement (General)
 6-02.3(25) Prestressed Concrete Girders
 6-02.3(26) Cast in Place Prestressed Concrete
 6-02.3(28) Prestressed Concrete Panels
 6-02.3(29) Downspouts
 6-02.3(34)A Removal of Concrete (Structures)
 6-03.3(7)A Shop Drawings (Steel Fabricating)
 6-03.3(7)B Erection Methods (Steel Structures)
 6-03.3(25) Welding and Repair of Welding
 6-03.3(27) High Strength Bolt Holes
 6-03.3(28) Shop Assembly
 6-03.3(32) Assembling and Bolting (Steel Structures)
 6-04.3(3) Shop Details (Treated Lumber)
 6-05.3(11)H Pile Driving from or near Adjacent Structures
 6-06.3(2) Metal Railings
 6-11.1(1) Precast Concrete Retaining Wall Systems

DIVISION 7 STORM DRAIN, CULVERTS, SANITARY AND COMBINED SEWERS, WATER MAINS AND RELATED STRUCTURES

7-02.3(1)A General (Placing Culvert Pipe)
 7-03.3(6) Alternate Installation (Structural Plate Pipe, Etc.)
 7-05.2 Material (MH, CB, and Inlets)
 7-05.3(1)K Joints
 7-05.3(1)L Shop Fabricated Corrugated Metal Manholes
 7-10.3(7)G2 Support System
 7-17.3(1)A7b Support System
 7-17.3(2)J Underground Construction

DIVISION 8 MISCELLANEOUS CONSTRUCTION

8-01.3(2) Temporary Erosion And Sediment Control
 8-30.1(3) Electrical Shop Drawings
 8-11.3(1)E Guardrail Shop Drawings
 8-14.3(7)B Wheel Chair Ramp
 8-14.3(7)F Curb Ramp Retrofit
 8-31.1(4)A Signalization Shop Drawings
 8-32.1(3) Pole and Pedestal Shop Drawings
 8-33.1(3) Electrical Conduit Shop Drawings

DIVISION 9 MATERIALS

9-15.4 Automatic Controllers (Irrigation)
 9-30.3(12)G Cast-in-place Concrete Valve Chamber
 9-31.3 Street Light Wiring
 9-31.5 Below Grade Wire Splice
 9-33.2(9) Bracket Arms

1-05.3(11) AS-BUILT RECORDS

"As-built records" may also be called "as-built drawings", "as-built documents", or "record drawings". Where Contractor provided as-built records are required in the Contract, the Contractor shall keep at the Project Site a set of the Contract Drawings, and Engineer reviewed Shop Drawings accurately marked with all changes or deviations from the original

Contract or from the Engineer reviewed Shop Drawings. These as-built records shall be kept up-to-date on a daily basis as the Work requiring as-built records progresses.

The Contractor shall submit to the Engineer an as-built record set of Drawings showing all as-built information required in the Contract prior to the Physical Completion Date. These as-built records shall be accurate, clean, clear, easily readable, and shall become the official as-built record set for the applicable portion of the Work.

Standard Specification Sections with specific Contractor provided as-built record requirements are as follows:

6-02.3(37)	Electrical Conduit in Concrete Structures five (5) Working Days before placing concrete)
6-03.2	Materials for Steel Structures (before the Physical Completion Date)
6-02.3(6)A	Electrical Wiring in Structural Concrete
6-03.3(7)A	Shop Drawings for Steel Structures (before the Physical Completion Date)
8-03.3(4)	Capped Irrigation Pipe
8-03.3(12)	Irrigation System Orientation five (5) Working Days before the training session)
8-03.3(13)	Irrigation System Operation five (5) Working Days before the training session)
8-31.3(5)B	Detector Loop Lead-In Cable (before Turn-on/Cut-over)
8-31.3(5)C	Detector Loop Inductance Testing at the Handhole (before Turn-on/Cut-over)
8-31.3(5)E	Detector Loop Inductance Testing at the Control Cabinet (before Turn-on/Cut-over)
8-31.3(5)F	Encapsulated Detector Loop
8-31.3(16)	Turn-on/Cut-over Procedure (before Turn-on/Cut-over)
8-31.3(17)	Final Inspection – Wiring one (1) Working Day after Turn-on/Cut-over)
8-33.3(2)A	Conduit Installation in Concrete Structures five (5) Working Days before placing concrete).

1-05.3(12) SUBMITTAL PREPARED BY PROFESSIONAL ENGINEER

Where the Contract requires a submittal prepared by a Professional Engineer, the Drawings and design calculations shall be prepared by (or under the direct supervision of) a Professional Engineer, with current license under Title 18 RCW, State of Washington, who is registered and qualified in the applicable branch of engineering, or as specified below. Each sheet of the Drawings shall carry the following:

1. Professional Engineer's original signature, date of signature, original seal (photocopies not accepted), registration number, and date of expiration,
2. The initials and dates of all participating design professionals,
3. Clear notations of all revisions including identification of who authorized the revision, who made the revision, and the date of the revision,
4. The Contract number, Contract title, and sequential sheet number. These shall also be on all related documents, and
5. Identify where each Drawing sheet will be utilized by referencing the Contract Drawing sheet number and related item or detail.

Design calculations shall carry on the submittal cover sheet, the Professional Engineer's original signature, date of signature, original seal (photo copies not accepted), registration number, and date of expiration.

A State of Washington Professional Engineer, licensed under Title 18 RCW, State of Washington, who is registered and qualified in the applicable branch of engineering may be retained to check, review, and certify Drawings and calculations of an individual who is licensed in another state and when such Work was not prepared under the "direct supervision" of the Washington State Professional Engineer, provided that the following conditions are satisfied:

1. That the Work being reviewed was prepared in accordance with Washington law by an individual holding valid registration in another state as a civil or structural engineer,
2. The Washington State Professional Engineer conducts independent calculations and reviews all technical matters contained within the subject Work, Drawings, Contract Drawings, specifications, legal requirements, technical standards, other related documents; and has verified that the design meets all applicable specifications and is in agreement with the specific site conditions and geometry,
3. All Drawing sheets shall carry the Washington State Professional Engineer's original signature, date of signature, original seal (photo copies not accepted), registration number, and date of expiration,
4. Eight (8) copies of the Washington State Professional Engineer's independent calculations shall be submitted to the Engineer for review along with the Drawings. The independent calculations shall carry on the submittal cover sheet the Washington State Professional Engineer's original signature, date of signature, original seal (photocopies not accepted), registration number, and date of expiration., and
5. The Washington State Professional Engineer shall keep a signed and sealed copy of the Drawings, independent calculations, specifications, and other related documentation that represents the extent of the review.

1-05.3(13) CONTRACTOR'S FAILURE TO PROVIDE OR COMPLETE SUBMITTALS, AND PROGRESS OF THE WORK

All submittals required of the Contractor shall be provided by the Contractor. The Contractor acknowledges that its failure to timely provide or complete all submittals will place an extra and unnecessary burden on the Owner or the Engineer to meeting other obligations.

The Contractor agrees that failure to provide and complete all submittals is cause for the Owner to withhold payment in the progress estimate for any and all Bid items where the Contractor has failed to comply with the specified

requirement to provide such submittal. No claim for delay or extension to Contract Time will be allowed for time lost due to Contractor's late submittal and to Contractor's resubmittal.

The Contractor shall not perform Work or obtain material or begin fabrication based on a required submittal until the Engineer has returned the submittal without requiring resubmittal.

If a submittal is required by the Contract, any related portion of Work performed by the Contractor prior to the Engineer's return of the submittal without requiring resubmittal, or as otherwise specified by the Engineer, shall be solely at the Contractor's risk and expense.

1-05.4 CONFORMITY WITH AND DEVIATIONS FROM DRAWINGS AND STAKES

Work performed shall be in conformity with the lines, grades, cross sections, data, and dimensions indicated on the Drawings or staked by the Engineer. These stakes and marks will govern the Contractor's Work. The Contractor shall take full responsibility for detailed dimensions, elevations, and slopes measured from them.

Where specific tolerances are stated in the Contract, the Work shall be performed within those stated limits. The Engineer will determine if the Work is in conformity with the lines, grades, cross sections, and dimensions given. The Engineer's decision on whether the Work is in conformity shall be final, as provided in Section 1-05.1.

Prior to undertaking each part of the Work, the Contractor shall carefully study and compare the Contract to existing field conditions by checking and verifying pertinent figures shown in the Contract, and checking and verifying all applicable field measurements. The Contractor shall promptly provide written notice to the Engineer of any conflict, error, discrepancy, or omission that the Contractor discovers.

The Contractor shall not deviate from the requirements in the Contract except when authorized to do so, in writing, by the Engineer.

1-05.5 CONSTRUCTION STAKES

All Work constituting the practice of engineering or land surveying within the City of Seattle shall require NAVD88 as the vertical datum, and NAD83 (1991) as the horizontal datum.

Before the Engineer will provide survey controls and offset points, the Contractor shall first provide a Project Site that has been prepared for safe and orderly installation of such controls and points as determined by the Engineer.

The Engineer will furnish survey controls and offset points for Work areas at the Project Site as follows:

1. Two (2) intervisible horizontal control points for each continuous street between consecutive intersections, and no less than two (2) points per 1320 linear feet measured along the centerline of street. "T" intersections branching off a street with no Work on that branching street will have one control point at the T intersection. T intersections branching off a street with Work on that branching street will have horizontal control points per the first sentence of this item 1.
2. Two (2) vertical control points for each continuous street between intersections within the Project Site. A minimum of two (2) points per 1320 feet will be provided.
3. Offset points to establish line and grade for the following City of Seattle owned utilities:
 - a. Water Main, hydrants, valve boxes and chambers;
 - b. Storm Drain, inlets, catch basins, culverts, manholes, and Sewer, not including side Sewer; and
 - c. SCL electrical conduit and vaults.

The Standard Specifications also address additional survey controls provided by the Engineer for specific constructions (see Sections 2-06.3(1) and 2-10.3(4)) and, unless the Contract specifies otherwise, where the Engineer may provide additional staking (see Sections 2-08.3(1)A, 2-09.3(1)B, 4-04.3(5), 5-04.3(4)C1, 5-05.3(18), 5-05.3(19), 7-18.3(1)A, 8-11.3(3), 8-15.3(1), 8-15.3(5), 8-16.1, 8-18.3(1)).

The Contractor shall use these Owner-furnished survey controls and offset points for all necessary calculation and survey for the Contractor to complete the Work, and the Contractor shall assume full responsibility for detailed dimensions, elevations, lines, grades, excavation slopes, and as may be required of the Work measured from these Engineer furnished survey controls and offset points..

Survey controls and offset points provided by the Engineer for the Contractor shall be preserved and not be disturbed.

Should any discrepancy in survey controls or offset points provided by the Engineer be identified by the Contractor, then upon discovery, the Contractor shall immediately notify the Engineer of such discrepancy including providing timely follow up with written notice. In the absence of such immediate notification and follow-up written notice, the Contractor shall be responsible and liable for any error in alignment or grade at no separate or additional cost to the Owner.

Any claim by the Contractor for extra compensation or delay due to error in the Engineer provided survey controls and offset points will not be allowed unless the original Engineer provided survey controls and offset points still exist undisturbed. For straight line and straight grade, no less than three (3) consecutive points shall be provided by the Contractor to determine variation from a straight line or grade.

The Contractor's surveyor shall be, or shall work under the direct supervision of, a Land Surveyor licensed under Title 18 RCW in the State of Washington and regularly performing survey in the State of Washington. The Contractor shall keep

updated survey field notes in a standard field book and in a format generally accepted in the Land Survey profession. These field notes shall include all survey work performed by the Contractor's surveyor in establishing line, grade and slopes for the Work. Copies of these field notes shall be provided to the Engineer upon request.

The Contractor shall submit a legible and complete copy of all Contractor surveyor notes and calculations used in the Contractor's survey to the Engineer, and such shall become the property of the Owner.

The Contractor shall submit any request for Engineer provided surveying services at least ten (10) Working Days in advance of the need. The Engineer cannot guarantee that such request can be performed by the Engineer; however, should the Engineer determine he or she can perform such survey or portion thereof, then such additional survey by the Engineer and the Engineer's hourly dollar rates shall be agreed to by the Contractor before such survey work begins. The Contractor agrees that all Engineer cost for providing such survey will be charged to the Contractor and deducted from each progress payment as it may come due:

See Section 1-07.16(1) regarding responsibilities associated with monumentation.

If the survey work provided by the Contractor does not meet the standards of the Engineer, of Title 196 WAC, or of Ch 18.43 RCW, the Contractor shall, upon the Engineer's written notice, remove the individual or individuals doing the Contractor's survey work. Thereafter, the survey work may be completed by the Engineer by such means as the Engineer deems appropriate at the Contractor's sole expense, and all cost for completing the Contractor's survey work by the Engineer will be addressed in accordance with Section 109.9(3).

All costs for survey work required to be performed by the Contractor shall be included in the Bid item prices Bid for the Work. .

1-05.6 INSPECTION OF WORK AND MATERIALS

Work performed and Materials furnished will be subject to inspection by the Engineer. The Contractor shall give the Engineer a minimum one (1) Working Day advance notice when Work and Materials are ready for inspection, testing, review, approval, or retesting as applicable. The Contractor shall provide such facilities as are deemed necessary by the Engineer for sufficient and safe access to the Work or to the Material. Such facilities shall include, but not be limited to, walkways, railings, ladders, platforms, support systems, safety harnesses, safety lines, and safety nets.

Upon request, the Contractor shall furnish, without charge, samples of Materials used, or to be used in the Work, for inspection and testing, to ensure conformance with the Contract. If Materials are tested and approved for the Work, then used for purposes not connected with the Work, the cost of testing and inspection will be deducted from monthly progress estimates for payment to the Contractor. Materials used without inspection may be ordered removed and replaced, and the cost of the Material, including the work associated with the removal and replacement of the Material and any other Material and Work impacted by the removal and replacement, shall be at the Contractor's sole expense.

If the Contractor fails to furnish Material samples and/or test results as required in the Contract, the Engineer and/or testing agency designated by the Engineer, may sample and/or test the Material at the Contractor's sole expense in order to verify compliance of the Material with the Contract. Reimbursement for sampling and/or testing performed by the Engineer will be charged to the Contractor at a rate of \$85.00 per hour. Reimbursement for sampling and/or testing performed by a testing agency will be by invoice from the designated testing laboratory, except for Laboratory retest and field revisit charges as specified in Section 1-05.7. These charges will be deducted from moneys due or to become due the Contractor on monthly progress estimates.

Inspections, tests, measurements and other actions taken by the Engineer are for the sole purpose of assisting the Engineer to assess, whether or not Work, Materials, rate of progress, and quantities, comply with the Contract. These actions by the Engineer shall not relieve the Contractor from determining independently that full compliance with the Contract is met at all times, or relieve the Contractor from any responsibility for the Work.

Upon request, the Contractor shall remove or uncover any portions of completed Work for inspection by the Engineer. After inspection, the Contractor shall make restoration conforming to the standards required by the Contract. The costs associated with uncovering, removing, testing, and retesting as applicable, and restoring exposed Work and Material, including compensating the Engineer for any additional professional services required including retesting and as specified in Section 1-05.7, shall be at the Contractor's sole expense, if:

1. The exposed Work or Material proves to be unacceptable, or
2. The exposed Work or Material was placed without authority or due notice to the Engineer.

If the exposed work proves to be acceptable and the Contractor had performed the original work with the authority of and due notice to the Engineer, payment will be made as extra Work for all costs associated with the uncovering, removing, and restoration and the Contract Time will be adjusted.

Where Work is required to be performed on any facility of a public agency, railroad, or utility, or to the satisfaction of any federal, State, county, or municipal agency, their representatives shall be permitted to inspect the Work when the Contractor is advised by the Engineer to permit them to do so. The Contractor agrees that such inspection shall not make such representatives a party to the Contract, nor shall it constitute an interference with the rights of the Owner or the Contractor.

1-05.7 DEFECTIVE WORK AND UNAUTHORIZED WORK

The Engineer will not pay for unauthorized Work or defective Work. Work and Materials that do not conform to the requirements of the Contract, Work done beyond lines and grades shown in the Drawings or established by the Engineer, or extra Work and Materials furnished without written approval of the Engineer will be considered defective Work or unauthorized

Work as applicable. Such Work shall be at the Contractor's risk and sole expense and may be rejected, even if the Work has been inspected, or a progress estimate is made for payment.

Upon order of the Engineer, such Work or Material shall immediately be remedied, removed, replaced, or disposed of and all costs, including retesting costs as applicable, associated with such Work shall be at the Contractor's sole expense. Such Laboratory retesting costs of replaced or reconstructed Work or Material will be charged to the Contractor in accordance with the following schedule:

Test Name	Specification Section	Unit	Cost of Unit Retest
Field Soil Density Reading	2-03.3(14)E	Each	\$100.00
Concrete Pavement Coring	5-05	Each	\$200.00
Asphalt Pavement Coring	5-04.3(9)	Each	\$200.00
Soil/Aggregate Sieve Analysis	9-03.15	Each	\$150.00
Moisture-Density Curve	2-03.3(14)E	Each	\$250.00
L A Abrasion	9-03.15, 9-03.17	Each	\$150.00
Soundness	9-03.17	Each	\$100.00
Organic Content	9-14.1(4)	Each	\$50.00
Epoxy Pull Out Test	6-02.3(31)	Each	\$50.00
Asphalt Concrete Sieve Analysis	5-04.3(7)A		\$200.00
Asphalt Concrete Binder Content	5-04.3(7)A		\$100.00
Asphalt Concrete Air Void Analysis (V _A)	5-04.3(7)A		\$200.00

Each field revisit by the Laboratory for the purpose of retesting previously identified unacceptable Work or Material will be charged to the Contractor at the rate of \$100.00 each visit.

These charges will be deducted from moneys due or to become due the Contractor on monthly progress estimates.

Failure on the part of the Engineer or an Assistant to reject defective Work or unauthorized Work shall not release the Contractor from the Contractor's contractual obligations, be construed to mean acceptance of such Work or Material by the Owner or, after the Completion Date, bar the Owner from recovering damages or obtaining such other remedies as may be permitted by law.

No adjustment in the Contract Time or compensation will be allowed because of delays in the performance of the Work as a result of correcting defective Work or unauthorized Work.

1-05.8 ENGINEER'S RIGHT TO CORRECT DEFECTIVE WORK AND UNAUTHORIZED WORK

If the Contractor fails to remedy defective Work or unauthorized Work or both as may apply within the time specified in a written notice from the Engineer, or fails to perform any part of the Work required by the Contract, the Engineer may correct and remedy such Work, as may be identified in the written notice, by such means as the Engineer may deem necessary, including the use of Engineer forces.

If the Contractor fails to comply with a written notice to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective Work and unauthorized Work, or both as may apply, corrected immediately, have the rejected Work removed and replaced, or have Work the Contractor refuses to perform completed by using in-house or other forces. An emergency situation is any situation that, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Engineer attributable to correcting and remedying defective Work or unauthorized Work, or Work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from moneys due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of Work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized Work.

No adjustment in Contract Time or in compensation or both will be allowed because of the delay in the performance of the Work attributable to Owner's exercise of the right provided by this Section nor shall the exercise of this right diminish the Engineer's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the Work as required.

1-05.9 EQUIPMENT AND MACHINERY

Equipment and machinery shall be adequate for the purposes used, kept in good working condition, and operated by competent operators. The Contractor is alerted that several Specification Sections have additional specific equipment or machinery requirements. The Contractor is also alerted that several Specification Sections have requirements for the Engineer to have safe and convenient access to plant and Contractor Equipment for observation and sampling purposes, and may also require a safe and convenient temporary area for on-site testing purposes. See Sections 1-09.1, 1-09.2, 5-04.3(1), 5-05.3(3), 6-02.3(3).

At the Engineer's request, the Contractor shall provide, at no additional cost to the Owner, an operating and maintenance manual for each model or type of mixing, placing, or processing equipment before using it in the Work. The

Contractor shall also provide test instruments to confirm whether the equipment meets operating requirements, such as vibration rate, revolutions-per-minute, or any other requirements.

The Contract may require automatically controlled equipment for some operations. If the automatic controls on such equipment fail, the Contractor may operate the equipment manually for the remainder to that normal Working Day, provided the method of operation produces results otherwise meeting the Specifications. Continued operation of the equipment manually beyond this Working Day will be permitted only by specific authorization of the Engineer.

The Engineer will reject equipment that repeatedly breaks down or fails to produce results within the required tolerances. The Contractor shall promptly replace rejected Equipment. Rejection and replacement of equipment shall give the Contractor no right to additional compensation or time.

1-05.10 GUARANTEES AND WARRANTIES

1-05.10(1) GENERAL GUARANTY AND WARRANTY

The Contractor shall furnish to the Engineer any guaranty or warranty furnished as a normal trade practice in connection with the purchase (by the Contractor or a Subcontractor) of any equipment, materials, or items incorporated in the Work.

If within one year after the Physical Completion Date, defective Work or unauthorized Work is discovered, the Contractor shall promptly, upon written notice of the Engineer, return and in accordance with the Engineer's instructions, either correct such Work, or if such Work has been rejected by the Engineer, remove it from the Project Site and replace it with non-defective and authorized Work, all at no additional cost to the Owner. If the Contractor does not promptly comply with the written notice to correct defective and unauthorized Work as may apply, or if an emergency exists, the Engineer reserves the right to have defective Work and unauthorized Work corrected or removed and replaced as provided by Section 1-05.8.

The Contractor agrees the above one year limitation shall not exclude or diminish the Owner's rights under any law to obtain damages and recover costs resulting from defective Work and from unauthorized Work discovered after one year but prior to the expiration of the legal time period set forth in RCW 4.16.040 limiting actions upon a Contract in writing, or liability expressed or implied arising out of a written agreement.

1-05.10(2) WARRANTY OF TITLE

The Contractor shall warrant good title to all Materials, Supplies, and equipment purchased for, or incorporated in, the Work. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing Materials or labor, to recover under any bond given by the Contractor for their protection, or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the Owner.

The provisions of this paragraph shall be inserted in all subcontracts and Material Contracts, and notice of its provisions shall be given to all persons furnishing materials for the Work when no formal Contract is entered into for such Materials.

1-05.11 FINAL INSPECTION

1-05.11(1) SUBSTANTIAL COMPLETION DATE

When the Contractor considers the Work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. To be considered substantially complete the following conditions must be met:

1. The Owner must have full and unrestricted use and benefit of the facilities, both from an operational and safety standpoint; and
2. Only minor incidental Work, replacement of temporary substitute facilities, or corrective or repair Work remains to reach physical completion of the Work.

The Contractor's request shall list the specific items of Work in subparagraph two immediately above that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the Work with the Contractor to determine the status of completion.

If, after inspection, the Engineer concurs with the Contractor that the Work is substantially complete, the Engineer will, by written notice to the Contractor, set the Substantial Completion Date. If, after this inspection, the Engineer does not consider the Work substantially complete, the Engineer will, by written notice, so notify the Contractor giving the reasons therefore.

Upon receipt of written notice concurring in or denying Substantial Completion, whichever is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized interruption, the Work necessary to reach substantial and/or physical completion. The Contractor shall provide the Engineer with a revised critical path schedule indicating when the Contractor expects to reach substantial and/or physical completion of the Work.

The above process shall be repeated until the Engineer establishes the Substantial Completion Date.

The Engineer may also establish the Substantial Completion Date unilaterally.

1-05.11(2) FINAL INSPECTION AND PHYSICAL COMPLETION DATE

The Engineer will not make the final inspection until the physical Work required by the Contract has been completed. This Work shall include final cleanup (see Sections 1-04.11 and 1-07.24), providing the Engineer with all required submittals (see Section 1-05.3), completing operational testing and submitting operation and maintenance (O&M) manuals when specified in the Contract (Sections 1-05.3 and 1-05.11(3), and all extra Work ordered by the Engineer. If the Engineer

believes a written release from a private property owner (see Sections 1-04.11 and 1-07.24) is being arbitrarily withheld, the Engineer may, at his or her sole discretion, accept that portion of the Work involved.

The Physical Completion Date for the Contract will be determined as provided in Section 1-08.5.

When the Contractor considers the Work physically complete and ready for final inspection, the Contractor, by written notice, shall request the Engineer to schedule a final inspection. Within five (5) Days, the Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the Work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective Work shall be pursued vigorously, diligently, and without interruption until physical completion of the listed deficiencies.

If action to correct the listed deficiencies is not initiated within seven (7) Days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies. Such steps may include the correction of defects using in-house forces or by others. In such case, the direct and indirect costs incurred by the Engineer shall be deducted from moneys due or becoming due the Contractor. Such indirect or direct costs shall include in particular, but without limitation to, compensation for additional professional services required in cost of repair and replacement of the Work of others which is destroyed or damaged by correction, removal, or replacement of the Contractor's deficient Work. The Contractor will not be allowed an extension of Contract Time because of a delay in the performance of the Work attributable to the exercise of the Engineer's right hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the Owner, in writing, of the date upon which the Work was considered physically complete. That date shall constitute the Physical Completion Date of the Contract, but shall not imply all the obligations of the Contractor under the Contract have been fulfilled.

1-05.11(3) OPERATIONAL TESTING, AND OPERATION AND MAINTENANCE (O&M) MANUALS

It is the intent of the Owner to have at the Physical Completion Date, a complete and operable system with all of the information necessary to operate and maintain the system. Therefore, when the Work involves the installation of machinery or other mechanical equipment; street lighting; electrical distribution and transmission systems; signal systems; irrigation systems, buildings; or other similar Work, it may be desirable for the Engineer to have the Contractor operate and test the Work for a period of time after final inspection but prior to the Physical Completion Date. Whenever items of Work are listed in the Project Manual for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment that proves faulty, or are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period, shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date can not be established until testing and corrections have been completed to the satisfaction of the Engineer.

Prior to operational testing or as may be arranged by the Engineer, the Contractor shall submit to the Engineer, three (3) sets of operating and maintenance (O&M) manuals for the item to be tested. During operational testing, the Contractor shall accommodate the Engineer in understanding and applying O&M manual instruction and recommendation. Should inconsistencies between the O&M manual and actual operation or actual maintenance be discovered, the Contractor shall provide three (3) sets of Supplier provided amendment addressing all correction.

Each O&M manual shall include the following:

- (a) A title indicating its contents permanently labeled on the outside of the binder;
- (b) A cover sheet identifying equipment with the process or assembly with which it is used, according to:
 - (1) location,
 - (2) Specification Section number and title, and
 - (3) Engineer's Drawing (sheet) number;
- (c) A table of contents; and
- (d) A text as prepared by the manufacturer and including the following information or materials, as applicable:
 - 1) Equipment operating instructions including start-up and shut-down procedures, safety precautions, and instructions on specific controls;
 - 2) Electrical test reports, including electrical system and motor test reports;
 - 3) Mechanical test reports, including factory running tests and performance rating tests for motorized equipment;
 - 4) Shop Drawings;
 - 5) Assembly drawings;
 - 6) Parts list;
 - 7) Bill of Materials;
 - 8) Wiring diagrams;
 - 9) Maintenance instructions to cover any routine operation required to insure the satisfactory performance and longevity of the equipment, such as lubrication instructions, lists of lubricants, and belt tensioning;
 - 10) Maintenance summary forms;
 - 11) Manufacturer's warranty.

Manuals shall be bound in three-ring or spiral binders with plastic or other stain resistant covering. Manuals shall be 8-1/2 x 11 inches in size except for oversize Drawings which shall be bound in fold-out fashion or folded and placed inside a bound-in envelope. Multiple thinner binders are preferred to extra large and bulky binders where subdivisions of the contents permit. Equipment operating instructions and test reports shall be bound in front of maintenance instructions and other materials.

Unless the Contract specifies otherwise, the costs for power, fuel, labor, Material, Supplies, and everything else needed to successfully complete operational testing, shall be included in the various Bid item prices related to the system being tested, unless specifically set forth otherwise in the Bid Form.

Operational and test periods, when required by the Engineer, shall not affect a manufacturer's guaranties or warranties furnished under the terms of the Contract.

1-05.12 COMPLETION

The Contractor must perform all the obligations under the Contract before the Completion Date can be established. A Certificate of Completion for the Work issued by the Owner will establish the Completion Date and certify the Work as complete. The Final Contract Price may then be calculated. The following must occur before the Completion Date can be established and the final Contract price calculated:

1. The physical Work on the Project site must be complete; and
2. The Contractor must furnish all documentation required by the Contract and required by law, necessary to allow the Owner to certify the Contract as complete. These include but are not limited to:
 - a. Audits per Section 1-04.5(6);
 - b. Extension of time requests per Section 1-08.8;
 - c. Material certifications per Section 1-06.3;
 - d. Certified payrolls and prevailing wage statements per Section 1-07.9; and
 - e. Final Contract Payments Reporting Form per Section 1-08.1(3).

The issuance of a Certificate of Completion will not constitute acceptance of unauthorized Work or defective Work or Material.

The Contractor agrees that establishment of the Completion Date shall not relieve the Contractor of the responsibility to indemnify, defend, and protect the Owner against any claim of loss resulting from the failure of the Contractor, a Subcontractor of any tier, or any other person who provides labor, Supplies, or provisions for carrying out the Work or for any payments required for unemployment compensation under Title 50 RCW or for industrial insurance and medical aid required under Title 51 RCW.

Failure of the Contractor to perform any or all of the Contractor's obligations under the Contract shall not bar the Owner from unilaterally certifying the Contract complete so the Engineer may calculate a Final Contract Price as provided in Section 1-09.9.

1-05.13 SUPERINTENDENTS, LABOR, AND EQUIPMENT

1-05.13(1) GENERAL

The Contractor shall keep a copy of the Contract at the Project Site, give the Work the attention required to maintain scheduled progress, and cooperate with the Engineer and the Engineer's Assistants in the administration of the Work.

The Contractor shall be present, in person, or be continuously represented by a duly authorized representative at the Project Site during progress of the Work. The Contractor shall designate in writing before starting the Work, a project manager or superintendent, who shall be experienced, capable of understanding the Contract, and able to supervise the performance of the Work. The Contractor's superintendent or project manager shall have full authority to represent and act for the Contractor. Written notice given to the project manager or superintendent shall be as binding as if given to the Contractor.

The Work shall be under the continuous supervision of competent personnel experienced in the class of Work being performed. Incompetent, careless, or negligent employees (including supervisors) shall be discharged by the Contractor upon written order of the Engineer. A superintendent that repeatedly fails to follow a written order, direction, instruction, or determination from the Engineer shall, upon written order from the Engineer, immediately be removed from the Project Site by the Contractor. The Contractor shall then designate in writing to the Engineer, a new superintendent. Failure to comply with such order shall be sufficient grounds for termination of the Contract.

Machinery and Equipment shall comply with the requirements of Section 1-05.9.

1-05.13(2) CONTRACTOR/SUBCONTRACTOR PERFORMANCE EVALUATION PROGRAM

The Department of Executive Administration is charged with the responsibility of ensuring that all public works improvement projects are Awarded to the lowest responsive, responsible Bidder, and are performed in compliance with the Contract documents, City ordinances, and state and federal laws and regulations. A mandatory, standardized system of evaluating Contractors' and Subcontractors' performance yields consistency, objectivity, fairness, and accountability.

The Contractor's performance and compliance with the technical terms of the Contract will be rated by, or at the direction of, the senior supervisor within the administering department (i.e., the Senior Engineer, Architect, or project manager as appropriate) with concurrence by the Department Head or their designee. The Contractor or Subcontractor's compliance with social equity requirements will be evaluated by the Contracts Analyst in the Department of Executive Administration, Contracting Services with concurrence by the Senior Contracts Analyst.

The Owner is concerned with six major areas relative to the Contractor or Subcontractor's performance on a given project:

1. The Contractor's or Subcontractor's ability to effectively and efficiently schedule, administer, coordinate, finance, and manage its Work and the Work of its Subcontractors on the project;
2. The degree and extent of the Contractor's or Subcontractor's cooperation with the Owner, Engineer, their employees and consultants, and the public;
3. The Contractor's or Subcontractor's initiative in all aspects of its Work;
4. The quality of Material and workmanship and safe and timely completion of the final product; and
5. The Contractor enforces health and safety in conducting the Work.
6. The Contractor's compliance with social equity requirements and goals under Washington State law and the Seattle Municipal Code.

The Contractor Performance Evaluation Program is intended to:

- (a) Assist the Owner in exercising its discretion to determine a Contractor's qualifications and abilities to successfully perform a particular Contract;
- (b) Provide the Owner with a rational basis for determining whether or not:
 - (1) A Contractor can be relied upon to work responsibly, and
 - (2) To approve the Contractor's proposed principal Subcontractors;
- (c) Provide Contractors with a means of enhancing their reputation for qualification by receiving recognition for high standards of performance;
- (d) Encourage better working relationships between the Owner and Contractors;
- (e) Guide administering departments in approving, or not approving, proposed principal Subcontractors on a particular project;
- (f) Provide official, verifiable references for Contractors and Subcontractors who may be under consideration for Award of, or approval on, Contracts to be Awarded by other public agencies; and
- (g) Provide a history and an assessment of a Contractor's or Subcontractor's performance on prior City Contracts for use in suspension or debarment proceedings.

A "Deficient" or "Inadequate" report will be taken into consideration when determining Contractor qualifications in Awarding future Work. The full policy and sample form is located in the Appendix of the Project Manual.

1-05.13(3) ON-SITE EROSION CONTROL LEAD

The Contractor shall assign an On-Site Erosion Control Lead (ESC Lead) to the Work and shall identify the ESC Lead at the pre-construction conference.

The ESC Lead shall be given the authority and shall be responsible for ensuring compliance with, and updating as necessary, the Temporary Erosion and Sediment Control (TESC) Plan, as follows:

1. Preparing, maintaining, and updating a TESC file on-site that includes, but is not limited to:
 - a. TESC Plan,
 - b. Stormwater site plan,
 - c. TESC inspection reports (see item 3 below),
 - d. National Pollutant Discharge Elimination System construction permit (Notice of Intent), and
 - e. Other applicable permits.
2. Installing, maintaining, inspecting, repairing, and removing all temporary Erosion and Sediment Control Best Management Practices (ESCBMPs) included in the TESC Plan assuring continued performance of their intended function. All on-site erosion and sediment control measures shall be inspected;
 - a. at least once every five (5) Working Days,
 - b. each Working Day during runoff producing rain events, and
 - c. within 24 hours after a runoff-producing rain event.
3. Prepare a TESC Inspection Report after each inspection that shall include, but are not limited to:
 - a. When, where, and how ESCBMPs were installed, maintained, modified, and removed,
 - b. Repairs needed and repairs made,
 - c. Observations of ESCBMPs effectiveness and proper placement, and
 - d. Shall provide the Engineer a copy of this report the following Working Day.

1-05.14 COOPERATION WITH OTHER CONTRACTORS

The Owner reserves the right to perform other work at or near the Project Site (including Material sites) with forces other than those of the Contractor. This work may be done with or without a Contract. Should such Work be underway or subsequently undertaken within or adjacent to this project, the Contractor shall cooperate with all other Contractors or other forces, and conduct the Work so that the operations of both suffer the least interference and delay. Should there be disagreement between the Contractors, or the Contractor and the Engineer, as to the manner and order of performing Work, such disagreement will be resolved by the Engineer. The Engineer's decision in these matters shall be final, as provided in Section 1-05.1.

If the Contract gives notice of other work that may affect the Work, or other work is apparent from the Project Site investigation required by Section 1-02.4, the coordination of the Work shall be taken into account by the Contractor, and any resulting cost shall be included in the various Contract Bid items that make up the Work.

1-05.15 METHODS OF SERVING NOTICES

Written notice shall be considered delivered and service complete when:

1. Delivered by certified or registered mail to the other party at their last given address; or

2. Delivered in person to the other party; or
3. Delivered to authorized representative of the other party at the Project Site.

1-05.16 WATER AND POWER

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the Work. See the exception for water in Section 2-07.

1-05.17 ORAL AGREEMENTS

No oral agreement or conversation with any officer, agent, or employee of the Owner, either before or after execution of the Contract, shall affect or modify any of the terms or obligations contained in the Contract. Such oral agreement or conversation shall be considered as unofficial information and in no way binding upon the Owner, unless subsequently put in writing

SECTION 1-06 CONTROL OF MATERIALS

1-06.1 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

The Owner encourages the use of environmentally friendly materials.

Whenever practicable, the Contractor shall use recycled and reusable products.

At the pre-construction conference (see Section 1-08.1(2)), the Contractor shall submit a completed Request for Acceptance of Material Sources (RAMS) form for the proposed sources for all Materials to be used on the Work, including fabricators and manufacturers. See Sections 1-05.3 and 1-08.3(2) for Material source (RAMS form) submittal requirements. If the source of the material is not the same as the manufacturer or fabricator incorporating the source material into its product, then both the manufacturer or fabricator, and the source(s) shall be provided. In such case, the RAM shall include where each specific material source is involved with the material.

Approval of a Material source shall not mean acceptance of the Material. The Material shall meet the Contract requirements.

If the Engineer determines that Material from an approved source:

1. is not in compliance with the Contract at any time, or
2. is not uniform and contributes to defective Work,

the Engineer has the right to require the Contractor to provide replacement Material from another source approved by the Engineer. Upon written notice provided by the Engineer, the Contractor shall provide replacement material from an approved source. The Contractor shall not have any right to additional payment or to additional Contract Time, including time required to gain approval of a replacement source or to acquire replacement material.

All equipment, Materials, and articles incorporated in the permanent Work:

1. Shall be new unless otherwise specified in the Contract or specifically approved otherwise in writing by the Engineer,
2. Shall conform to the requirements of the Contract and be approved by the Engineer,
3. May be inspected or tested at any time during their preparation and their use including at the location of production, manufacture, or fabrication, and
4. Shall not be used in the Work if they become unfit after being previously approved.

Mention of manufacturers by brand name and model number is occasionally made in order to establish a basis of quality for certain items of material, equipment, or processes. Such mention is intended to include products of other manufacturers that will measure up to the designated standards of the product mentioned as an "or equal".

Wherever mention is made of a specific manufacturer, such mention shall be treated as if the phrase "or equal" appears thereafter whether or not in fact it does. The terms "or equal" and "or approved equal" shall be considered synonymous. If the Contractor prefers to use a different product than the one specified, the Contractor shall obtain the written approval of the Engineer before incorporating the product into the Work.

Where a Material or manufacturer is specified without substitution, there will be no consideration of substitute materials or manufacturers.

1-06.2 ACCEPTANCE OF MATERIALS

1-06.2(1) SAMPLES AND TESTS FOR ACCEPTANCE

The Contractor shall deliver representative samples (from the Contractor, producer, manufacturer, or fabricator) to the Engineer without charge before incorporating Material into the Work. Samples, not already provided for testing pursuant to Section 1-03.1(4), shall be provided in sufficient time and quantities to allow testing by the Engineer before use. The Engineer may require samples be submitted at any time. The Contractor, including Subcontractor at any tier, shall allow the Engineer full and unrestricted access to its facilities for inspection, observation, sampling and testing purposes. Samples not taken by or in the presence of the Engineer's qualified tester will not be accepted for test, unless so permitted by the Engineer.

Material testing shall comply with any special methods of testing set forth in the Contract, the Washington State Department of Transportation Materials Manual, or applicable designated, recognized standards of national organizations (see Section 1-01.2(1) for the standard acronyms of designated recognized standards organizations used throughout the Contract). This will apply to field tests, as well as to laboratory tests. The designated, recognized standard in effect on the Day of the

Advertisement for Bids for the Work will apply in each case unless the Contract references a standard with a specific publication date differing from the current edition.

1-06.3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE

The Engineer may accept certain Materials based on a Manufacturer's Certificate of Compliance as an alternative to Material inspection and testing when these Materials are specifically identified in the Contract. Unless the Contractor requests and obtains written authority from the Engineer for an exception to do otherwise, the Manufacturer's Certificate of Compliance shall be submitted prior to use of the Material. No payment will be made for Work incorporating Material without an acceptable Manufacturer's Certificate of Compliance. If, for any reason, the Contractor has not provided an acceptable Manufacturer's Certificate of Compliance for the exceptions specified in the Contract by the Completion Date, the Engineer may process the final payment as provided by Section 1-09.9 without paying for the Work performed on such a basis.

Where material is specified to conform to industry or technical society reference standards of designated recognized standards organizations, such as ASTM or AASHTO or ACI or AWWA etc., the Manufacturer's Certificate of Compliance shall indicate such compliance. The label or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, the Manufacturer's Certificate of Compliance shall contain a statement from a testing laboratory stating that the Material or Material property specified has been tested in accordance with the specified organization's test methods and that the item complies with specified organization's reference standard, or that the Material property complies with the specified property of the specified organization's reference test standard (see Section 1-06.5).

The Manufacturer's Certificate of Compliance shall identify the manufacturer, the type and quantity of Material being certified, and compliance with the applicable standards. Where Specifications require additional information be provided, the Contractor shall provide the additional information. The signature of a responsible corporate official of the manufacturer and supporting mill tests or documents shall be included. A Manufacturer's Certificate of Compliance shall be furnished with each lot of Material delivered to the Work unless the Contract specifies otherwise. The certified lot shall be clearly identified in the Manufacturer's Certificate of Compliance.

All material used based on a Manufacturer's Certificate of Compliance may be sampled and tested at any time. Any material not conforming to Contract requirements will be subject to rejection whether in place or not. The Engineer reserves the right to refuse to accept Material based on its Manufacturer's Certificate of Compliance.

1-06.4 HANDLING AND STORAGE OF MATERIALS

Materials used in the Work shall be handled and stored by the Contractor by methods that will prevent damage, exposure to elements, mixing with foreign materials, or deterioration from any other cause. The Engineer will not accept or sample for testing, Materials that are improperly handled or stored.

The Contractor shall repair, replace or make good all Owner provided Materials that are damaged or lost due to the Contractor's operation or while in the Contractor's possession, at no additional cost to the Owner.

1-06.5 REQUIREMENTS FOR TESTING AND TEST RESULTS FROM PRIVATE LABORATORIES AND INDIVIDUALS

When testing is required by a private laboratory or individual, whether by Specification or by condition of Street Use permit, that laboratory or individual shall be accredited or certified by an AASHTO or ASTM or A2LA (American Association for Laboratory Accreditation) or other designated recognized standards organization with recognized accreditation authority or certification authority, to make such accreditation or certification. Such accreditation or certification shall be current at the time of such testing and for the life of the Contract, whichever is greater.

Every test shall be performed with testing equipment calibrated as recommended by the equipment manufacturer, and at the calibration frequency recommended either by the test equipment manufacturer or the applicable test standard, whichever is most frequent.

Personnel performing tests shall be qualified by certification from a designated recognized standards testing organization to perform the required test.

Sample preparation, installation of sample in test equipment or equipment installation in sample or inspection or as may apply, equipment operation, test data acquisition, test data reduction, and test data summary shall be performed in accordance with the specified test standard unless required otherwise in the Contract.

Unless the Contract specifies otherwise, results of testing shall be reviewed, approved, and stamped by a Professional Engineer with current license under Title 18 RCW, or by other certifying individual, who is qualified to review and approve such results or perform such testing. The testing shall be performed to the satisfaction of the Engineer, in accordance with the designated recognized standards organization's test.

The Contractor, the testing laboratory, and the technician as may apply, agree to let the Engineer visit the laboratory, and to observe the technician at work, for the purposes of reviewing and observing the laboratory's quality system, the testing, the technician, the sample preparation, accreditation, personnel certifications and qualifications, test data administration, and as may be required by the Engineer or by the Contract.

All test results submitted to the Engineer by private testing laboratory shall be accompanied with the following information:

1. a Manufacturer's Certificate of Compliance by Professional Engineer or certified individual as may apply, listing the test standard(s) used and that the testing was in compliance with the Contract;

2. the name of the testing laboratory including the accrediting agency, date of accreditation, principal in charge of testing, name of personnel doing testing if different including qualifications, address, phone number, and e-mail address;
3. the results of the test(s) presented in the format required by the designated recognized test standard unless the Contract specifies otherwise;
4. where and how the sample was obtained, any care given to the sample, and any care given in preparing the sample not specified in the test standard, any deviations from the testing standard used in testing;
5. as the Contract may require.

1-06.6 SIEVES FOR TESTING

Sieves for testing shall comply with Section 9-03.15

SECTION 1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 LAWS TO BE OBSERVED

1-07.1(1) GENERAL

The Contractor shall observe and comply with all federal and State laws, tribal law, and with county and city resolutions, ordinances, and regulations that will in any way affect the Work.

Without usurping the authority of other agencies, the Engineer will cooperate with them in their efforts to enforce legal requirements. Upon awareness of any violation of a legal requirement, the Engineer will notify the Contractor in an effort to achieve compliance. The Engineer may also notify the agency responsible for enforcement if the Engineer deems that action necessary to achieve compliance with legal requirements. The Engineer may also assist the enforcement agency with Contractor compliance to the extent such assistance is consistent with the provisions of the Contract.

Compensation for increased or decreased costs due to changes in law or taxes occurring after the Bid Opening Date shall be determined in accordance with Section 1-09.4(2).

1-07.1(2) SAFETY RULES AND STANDARDS

The Contractor shall be solely and completely responsible for:

1. The safety, efficiency, and adequacy of the Contractor's plant, equipment, Materials and methods;
2. Any damage or injury resulting from the failure, or improper maintenance, use, or operation of the Contractor's plant, Equipment, and methods; and
3. Conditions of the Project Site, including safety of all persons and property during performance of the Work.

These requirements shall apply continuously and not be limited to normal working hours. The Engineer's review of the Contractor's performance shall not include review or a determination of the adequacy of the Contractor's safety measures in, on, or near the Project Site.

The Contractor shall establish, maintain, and supervise:

1. A safe and healthy working environment;
2. An accident prevention program; and
3. Training programs to improve the skill and competency of all employees with respect to occupational safety and health.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA), as amended.

The Contractor shall comply with the federal Occupational Safety and Health Act of 1970 (OSHA), including all revisions and amendments thereto; the provisions of the Washington Industrial Safety Act of 1973 (WISHA), as amended; and as a minimum, the requirements of Title 296 WAC, Department of Labor and Industries.

In addition, the Contractor shall comply with the requirements of the National Electric Safety Code, when applicable.

In cases of conflict between different safety regulations, the regulation containing the more rigorous safety standard shall apply.

The Contractor shall maintain at the Project Site office, or other well-known and readily accessible place at the Project Site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital or doctor's care persons, including employees who may have been injured on the Project Site. Employees shall not be permitted to work on the Project Site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

1-07.2 STATE TAXES

1-07.2(1) GENERAL

The Washington State Department of Revenue has issued special rules designed to assist the Contractor in accurately reporting to the Department of Revenue the Contractor's tax liability. Although information may be included in the Contract regarding the application of State taxes to a particular Contract or Bid item, it shall be the Contractor's responsibility to apply the correct interpretation of the laws and regulations relating to such taxes. Adjustments will not be made in the

amount to be paid by the Owner under the Contract because of any misunderstanding by the Contractor as to the Contractor's liability for, or the amount of, any taxes. If the Contractor is in doubt as to the tax procedures in any particular case, the Contractor shall consult with the Washington State Department of Revenue.

1-07.2(2) STATE SALES TAX - RULE 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., that are owned by a municipal corporation, or political subdivision of the State, or by the United States, and that are used, primarily, for foot or vehicular traffic. For Work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various Bid item prices and other Contract amounts, including those that the Contractor pays on the purchase of Materials, equipment, and Supplies used or consumed in doing the Work.

1-07.2(3) STATE SALES TAX - RULE 170

WAC 458-20-170, and its related rules, applies to the constructing and repairing of new or existing buildings, or other structures, upon Real Property. For Work performed in such cases, the Contractor shall collect from the Owner retail sales tax on the full Contract price. The Owner will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the Bid item prices, or in any other Contract amount subject to Rule 170, except as provided below.

Exception: The Owner will not add in sales tax for a payment the Contractor or a Subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable Supplies not integrated into the project. Such sales taxes shall be included in the Bid item prices or in any other Contract amount.

1-07.2(4) SERVICES

The Contractor shall not collect retail sales tax from the Owner on any Contract wholly for professional or other services (as defined in State Department of Revenue Rules 138 and 224).

1-07.3 WASTE MANAGEMENT AND DISPOSAL OF WASTE

1-07.3(1) GENERAL

All waste generated under this Contract shall be managed in accordance with all applicable local, State and federal regulations. Unless otherwise specified in the Contract, the Contractor is responsible for arranging the proper handling, storage, transporting and disposal of all wastes including processing and maintaining required documentation. This includes:

1. identifying and contracting with disposal sites that can legally accept the types of characterized wastes in performing the Work;
2. identifying and contracting with waste transporters qualified and licensed to transport these types of characterized wastes;
3. obtaining Waste Clearances (or other waste acceptance approvals) through the Seattle-King County Department of Public Health (SKCDPH) or other agencies as appropriate;
4. creating and processing all necessary documentation, such as Certificates of Disposal, sampling and analysis reports, Waste Clearance forms, Hazardous Waste Manifest, and others as applicable;
5. providing the Engineer timely notice for reviewing documentation before transporting; and
6. providing the Engineer copies of all documentation pertaining to waste generation and disposal.

The Waste Clearance Program Instructions and forms for SKCDPH are provided in the Appendix of the Project Manual. This information is provided for the convenience of the Contractor and the Contractor is solely responsible for verifying that it is still in effect. Additional copies of the forms or information regarding the forms may be obtained by calling SKCDPH at 206-296-4633. Private disposal companies and waste sites outside of King County may require other documentation, and Laboratory analysis of waste material may be required to obtain a waste clearance. Copies of all waste clearance or acceptance forms along with any associated laboratory data shall be provided to the Engineer.

Disposal sites utilized under the Contract must be in compliance with applicable rules and regulations including local ordinances.

The selection of waste sites and their use shall at all times be subject to the approval of the Engineer.

Waste sites located within the City limits of Seattle are subject to the rules and regulations set forth in Seattle's grading and drainage control ordinance (Ord. No. 108080 as amended by Ord. No. 111043) and as otherwise provided in the Seattle Municipal Code Chapters 22.800 through 22.808, and shall require a grading permit issued to the property owner by the Director of the Department of Planning and Development.

Waste sites located outside the City limits of Seattle but within unincorporated King County, shall be subject to the rules and regulations set forth in the King County Grading Ordinance (Ord. No. 1488). Sites may also be subject to rules and regulations of a local governmental authority if located within its jurisdiction.

Effective June 1, 1991 and in accordance with SMC 21.36 as amended by Ordinance 115589, no waste generated within the City of Seattle shall be deposited in a waste disposal facility owned and operated by King County.

Additional options for disposal of wood debris from clearing and grubbing are specified in Section 2-01.2. Any action required to comply with any permit and/or any approval requirements in a Contractor-provided disposal site shall be performed by the Contractor at no additional cost to the Owner.

1-07.3(2) SUBMITTAL

At the Pre-Construction Conference, the Contractor shall submit to the Engineer a list of proposed waste disposal and recycle sites that shall accommodate the types of wastes and recyclable Materials that can be reasonably expected from examination of the Bid Documents and Project Site including those materials supplied by the Contractor to perform the Work. The list shall identify each waste disposal and recycle site, and the estimated quantities and type of material to be wasted or recycled at each site. The list shall also identify the proposed transporter to be used for each type of waste or recyclable material and applicable licenses that may be necessary for transporting the characterized waste.

The submittal shall also provide a management plan for any wastes that are to be stored on the Project Site prior to recycling or disposal. The management plan shall provide procedures to ensure that wastes are stored in a safe, secure manner that does not allow for leakage or other releases of waste material during storage. Unless otherwise specified in the Contract, the Contractor shall submit adequate details indicating where such temporary waste storage is proposed and the proposed controls at each location including required signs, placards, labels or other identifying marks. Waste storage areas shall be inspected at least daily. Also see Section 1-07.5(5) regarding spill prevention and control.

Should additional or alternate disposal and recycle sites, and transporters become necessary during the life of the Contract, the locations and information for each additional site, and qualifications and licenses of transporters shall be submitted to the Engineer for approval at least ten (10) Working Days prior to their use.

1-07.3(3) CONTRACTOR FOLLOW-UP DOCUMENTATION REQUIRED FOR THE ENGINEER

The Contractor shall submit to the Engineer within ten (10) Working Days of receipt by the waste disposal site, two (2) copies of each shipment list (also known as "bill of lading" or "transmittal document" or "manifest") listing the waste material or materials shipped from the Project Site and deposited at the waste disposal site. The submitted shipment list shall have the waste site operator's confirmation for receipt of the waste, and the name of the waste transporter.

The Contractor shall also provide the Engineer with copies of the following documents:

- a. Certificates of Disposal (destruction / treatment / recycling) from the final disposal and treatment facility as applicable;
- b. Waste sampling and analysis reports as applicable; and
- c. Waste clearance or acceptance forms

1-07.3(4) RECYCLABLE MATERIALS

The City of Seattle encourages recycling of waste materials as may be permitted. Such Materials include asphalt concrete, Portland cement concrete, reinforcing steel, aggregate, and other Materials. A list of some recycling disposal sites will be provided, for the convenience of the Contractor only, in the Appendix of the Project Manual. It is the responsibility of the Contractor to verify the accuracy of this information prior to Bid. Any revenue obtained or expense incurred by the Contractor for recycling shall be the Contractor's alone.

1-07.3(5) RESERVED**1-07.4 SANITATION**

The Contractor shall provide and maintain in a clean, neat, and sanitary condition, any accommodations for the Contractor and Owner employees that are necessary to comply with the requirements and regulations of the State of Washington Department of Social and Health Services and other agencies. The Contractor shall commit no public nuisance and, at all times, keep all sites clean, in a neat and sanitary condition, and dispose of all waste in a proper manner.

1-07.5 PREVENTION OF ENVIRONMENTAL POLLUTION AND PRESERVATION OF NATURAL RESOURCES**1-07.5(1) GENERAL**

During the life of the Contract, the Contractor shall comply with all provisions of federal, State and statutes, City ordinances and any regulations pertaining to the prevention of environmental pollution and the preservation of public natural resources. Pursuant to RCW 39.04.120 such provisions as are reasonably obtainable are set forth below.

1-07.5(2) WATER QUALITY

The Contractor shall comply with City ordinances, State, and federal laws and other regulations or rules applicable to water pollution occurring in waters of the State and in interstate waters. The Contractor shall:

1. Exercise precautions throughout the life of the Contract to prevent contamination, pollution, erosion, siltation, sedimentation, and damage to public and private property, drainage systems, surface waters, and groundwater pollution, erosion, siltation, and damage to property;
2. Provide for the flow of all watercourses, including but not limited to streams, ditches, Sewers, and drains intercepted during the progress of the Work;
3. Completely restore disturbed watercourses to original or better condition, as the Contract may provide;
4. Not obstruct the gutter of any street;
5. Use all proper measures to provide for the free passage of surface water;
6. Remove and dispose of all surplus water, mud, silt, slicking, or other run-offs pumped from excavations or resulting from sluicing or pavement cleaning or other operations; and
7. Make all applicable notifications required by Section 1-07.28.

The Contractor shall comply with the water quality criteria required by the Department of Ecology and regulations of:

- 1) The Washington State Department of Fish and Wildlife;
- 2) Those federal statutes on oil spills enacted under the federal Water Pollution Control Act Amendments of 1972 (a copy of which may be obtained from the U.S. Environmental Protection Agency);
- 3) The water quality standards of the State of Washington as set forth in WAC Chapters 173-200 and 173-201A;
- 4) For work done within the City of Seattle, SMC Chapters 22.800 through 22.808 and other SMC as may apply.
- 5) Any local statute, regulation, ordinance, or rules that stipulate the various type of discharge prohibited in public Sewer systems or any drainage ditch in the local jurisdiction.

State statutes on water pollution covering liability of the Contractor, penalty for violation, liability and damages for injury or death of fish, animals or vegetation are set forth in Chapter 90.48 RCW. As an aid to the Contractor, some though not all, of the rules set forth by the various State departments are summarized below. The Contractor is cautioned, however, that each Department of the State may add other restrictions, as they deem necessary, to protect fish and to prevent air or water pollution:

A. State Department of Fish and Wildlife: In doing the Work the Contractor shall:

- a. Not degrade water quality in a way that would harm fish. (The Washington State Water Quality Regulations shall be in addition to other water quality criteria specified in the Contract for the Work.)
- b. Promptly notify the Engineer if any fish are stranded by the Work.
- c. If the Work has disturbed the vegetative cover of any stream bank or shoreline areas, replant the disturbed area with trees and other vegetation species selected compatible with area conditions as determined by the Engineer.
- d. Provide an open water channel at the lowest level of any isolated water location in the channel remaining when the Work is complete.
- e. Protect fish by preventing additional siltation build-up on the bed or bottom of any body of water.
- f. Allow stream flow to continue for fish passage including use of bypass as the Work may require.
- g. Keep all Equipment out of any flowing stream or other body of water, except when the Work requires.
- h. Not remove gravel or other bottom material from within the high-water flow channel bed of any stream nor from the bottom of any other body of water (except as the Contract may permit).
- i. Dispose of any Project debris.

B. State Department of Ecology: In doing the Work, the Contractor shall:

- a. Obtain a waste discharge permit from the Department of Ecology before:
 - (1) Washing aggregate, and
 - (2) Discharging water into a ground or surface waterway from pit sites or excavations when the water contains turbidity, silt, or foreign materials.
- b. Provide the Engineer with a copy of each waste discharge permit before starting the Work.
- c. Control drainage and erosion to minimize the pollution of any waterway.
- d. Dispose of all toxicants (including creosote, oil, cement, concrete, and water used to wash Equipment) in ways that will prevent them from entering State waters.
- e. Dispose of all debris, overburden, and other waste materials in ways that will prevent them from entering State waters.

The Contractor shall perform such temporary work as may be necessary to prevent water pollution, erosion, and related damage within the Project Site and that may be necessary at locations outside the Project Site used in support for the Work.

If Work is suspended for an extended period of time, the Contractor shall be responsible for controlling erosion, pollution, sedimentation, and runoff during the shutdown period.

In addition to other requirements in the Contract, this temporary Work shall include, but is not limited to, the following water quality considerations:

- A) **Diversion of Storm Water:** Storm water shall be diverted around the Project to prevent pickup of silt, clay, and other fine particles. This may be accomplished by pumping; improvising ditches; lining channels or by placing metal, plastic or concrete gravity pipe; constructing ditches, berms, culverts, etc. to control surface water; or constructing dams, settling basins, or energy dissipaters to control impacts of flow.
- B) **Surfacing Ground Water:** Surfacing ground water shall be intercepted and either routed around the areas of Work in-progress or, when impossible, routed through areas of Work in-progress, each with appropriate ESCBMPs to prevent erosion and control sediment.
- C) **Discharging Ground Water:** When ground water is encountered in an excavation, it shall be handled as follows:
 - (1) When the ground water meets State Water Quality standards, it may bypass detention and treatment facilities and be routed directly to its normal discharge point at a rate and method that shall not cause erosion.
 - (2) Meet the side Sewer permit requirements for temporary dewatering (SPU Director's Rule 02-04 and DPD Director's Rule 3-2004).

- (3) Discharging turbid ground water shall comply with the requirements specified in subsection D) immediately following.
- D) **Turbid Water Treatment Before Discharge:** Determination of turbidity shall be at the discretion of the Engineer. Turbidity requirements are as follows;
 - (a) for Lake Class Receiving Waters, turbidity shall not exceed 5 NTU over background conditions;
 - (b) for Class AA and Class A Waters, turbidity shall not exceed 5 NTU over background turbidity when the background turbidity is 50 NTU or less, or have more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU;
 - (c) for other classes of waters, refer to WAC 173-201A-045 and WAC 173-201A-030.

The term turbidity means the optical property of sample demonstrating the scattering and absorption of light caused by suspended material as expressed in Nephelometric Turbidity Units (NTU) and measured with a turbidimeter calibrated within the 6 months prior to turbidity determination by a laboratory compliant with Ch 173-50 WAC. Turbidity reports shall be accompanied by a Manufacturer's Certificate of Compliance indicating laboratory accreditation and turbidimeter calibration as specified.

Discharges to a State waterway caused by aggregate washing, drainage from aggregate pit sites and stockpiles, dewatering of pits and excavations, and other discharges shall not increase the existing turbidity of the receiving waters. Turbid water from the Project Site shall be treated before being discharged into stream or other State waters.

Water discharged to a Storm Drain, must meet State Water Quality standards and have permission from the local jurisdiction (SPU when within the City of Seattle).

Water discharged to a sanitary or combined Sewer must have permission from the local jurisdictions (meeting water quality requirements of both SPU and King County Industrial Waste Division for Work within the City of Seattle).

Turbidity may be removed by the use of lagoons or holding ponds, settling basins/tanks, overflow weir, polymer water treatment, discharging to ground surface, by percolation, evaporation or by passing through gravel, sand or fiber filters.
- E) **Erosion and Sediment Control:** General requirements to manage, prevent and control erosion and to treat sediment are specified in Section 1-07.15.
- F) **Chlorine Residual:** Water containing chlorine residual shall not be discharged directly into Storm Drains, streams, or State waters. Chlorine water may be discharged into sanitary sewers or disposed on land for percolation. Chlorine residual may be reduced chemically with a reducing agent such as sodium thiosulphate or vitamin C. Water shall be periodically tested for chlorine residual.
- G) **Vehicle and Equipment Washing:** Water used for washing vehicles and equipment shall not be allowed to enter Storm Drains, streams or other State waters. Separation of petroleum products, fresh concrete products or other deleterious material from wash water is required prior to discharge. Detergent solution may be discharged into only sanitary Sewers, or held on the ground for percolation. A recirculation system for detergent washing is recommended. Steam cleaning units shall provide a device for oil separation.
- H) **Oil and Chemical Storage and Handling:** Handling and storage of oil and chemicals shall not take place adjacent to surface waters. The storage shall be made in dike tanks and barrels with drip pans provided under the dispensing area. Shut-off and lock valves shall be provided on tanks. Shut-off nozzles shall be provided on hoses. Oil and chemicals shall be dispensed only during daylight hours unless the dispensing area is properly lighted. Should an oil or chemical spill occur, the Contractor shall promptly make the notification in accordance with Section 1-07.28 item 10, stop the spilling, contain the spill, and then clean up any spilled materials. Fencing shall be provided around oil storage. Locks shall be provided on valves, pumps, and tanks.
- I) **Sewage:** If a pipe carrying sewage is encountered and repair or relocation work is required, the Contractor shall provide blocking and sealing of the said pipe. Sewage shall be pumped out, collected, and conveyed or pumped directly to a sanitary or combined Sewer system manhole for discharge. Existing sewerage shall be maintained by the Contractor without interruption of service by the use of temporary Sewer bypasses. In addition, the excavated materials adjacent to and around a rupture of any pipe containing sewage shall be removed to a disposal site. Equipment and tools in contact with the above materials shall be washed by pressure water lines and the attendant wash water discharged into a sanitary or combined Sewer for transmission to a sewage treatment plant.
- J) **Sawcutting, Planing, and Grinding By-Products:** The Contractor shall take special precautions to assure that concrete, asphalt, concrete by-products, or asphalt by-products from, or used in, the drilling, saw-cutting, grinding, or planing of asphalt cement or cement concrete pavements, sidewalks, curbs, etc. do not enter any Storm Drain, surface water, and natural drainage system. In as much as saw-cutting by-products increase the pH of the wastewater, filtering prior to discharge will NOT be acceptable. The Contractor shall provide a means for collecting, for on-site temporary storing as necessary, and for disposing of these by-products. Surfaces contaminated with these by-products shall be power washed and vacuum swept clean at least daily, and more frequently during wet weather.
- K) **Gutters and other Surface Drainage Channels:** All construction waste and stockpiling, and all byproduct entering gutters and other pavement surface drainage channels shall be prevented from entering any inlet, catch basin, or other drainage structure or feature. Material shall be removed from drainage channels on a regular basis. Temporary filters or filter materials shall be placed and timely maintained by the Contractor in drainage channels to prevent the passage of said material.

1-07.5(3) AIR QUALITY

The Contractor shall maintain air quality within the National Emission Standards for Hazardous Air Pollutants. Air pollutants are defined as that part of the atmosphere to which no ambient air quality standard is applicable and which, in the judgment of the Administrator of the Environmental Protection Agency Clean Air Act, may cause or contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness.

1-07.5(4) NOISE POLLUTION

The Contractor shall conduct performance of the Work consistent with the applicable noise control levels set forth in SMC Chapter 25.08 or, if outside the City limits and in King County, Chapters 12.86 through 12.100, King County Code, including all reasonable measures for the suppression of noise resulting from Work operations including the equipping of engine driven equipment with such exhaust and air intake silencers designed to achieve the reasonable degree of silencing determined by Owner to be appropriately necessary.

1-07.5(5) SPILL PREVENTION AND CONTROL

An environmental spill shall be considered a release of contaminant or any Material that may be hazardous, or dangerous, or harmful to the environment.

In addition to the requirements specified in Section 1-07.5(2), the Contractor shall take precautions to assure that contaminants are under control and prevented from release. Contaminants anticipated for use in performing the Work (such as fuel, asphalt sealer, pesticide, lubricant, paint, etc.) shall be stored, handled, transported, used, and disposed of in accordance with each product's MSDS, manufacturer's recommendations, and applicable law, code, and regulation. Equipment (valves, pumps, switches, etc.) and Supplies (hose, containers, connections, etc.) shall be in good operating condition, leakproof, and shall be timely maintained as appropriate. MSDS information for each contaminant at the Project Site shall be centrally located at the Project Site and shall be readily accessible.

The Contractor shall have a trained on-site spill prevention and control coordinator at the Project Site when performing the Work. This coordinator shall ensure contaminants are accounted for and are safely stored.

The Contractor shall have readily accessible at an identified location on the Project Site, at least one Spill Kit containing Supplies appropriate for controlling, containing, and cleaning up contaminants used in performing the Work.

Should an environmental spill occur, the Contractor shall immediately contain the spill, and shall make the notifications in Section 1-07.28, item 10 as applicable.

Should contaminant or industrial waste enter a sanitary or combined Sewer, the Contractor shall immediately make the notification in Section 1-07.28 item 9.

In the event of any spill or discharge of a contaminant, the Contractor shall promptly take such steps as are reasonably designed to contain the spill or discharge, and shall thereafter promptly take such steps as are reasonably necessary to achieve the level of cleanup required under applicable federal, State and City laws and regulations. In addition, the Contractor shall follow any instruction provided by the Engineer or any agency having the authority to direct cleanup activities to containment and cleanup spills or discharges.

The Contractor shall submit to the Engineer for review within ten (10) Working Days after the Notice to Proceed Date, the Spill Prevention and Control Plan (SPC Plan) containing as a minimum, the following itemized information:

- A. The name of the Contractor's on-site person (on-site spill prevention and control coordinator) responsible for ensuring compliance with and performance of the Contractor's SPC Plan including how to timely contact (office phone and cell phone);
- B. The name and phone number of the Contractor's 24 hour/on call spill response Subcontractor";
- C. An itemized list of Supplies in a Spill Kit for use to control, contain, and cleanup contaminants anticipated for the Work, and the proposed location of this Spill Kit;
- D. A photo copy or other acceptable representation of a readily accessible and prominently visible weatherproof sign located with the Spill Cleanup Kit showing:
 - 1) the Contractor's on-site person with contact information,
 - 2) required notifications should a spill occur as indicated in this Section; and
- E. An adequate description of the SPC Plan addressing:
 - 1) controls and Supplies for preventing environmental spill,
 - 2) controls and Supplies for containing a spill should such occur,
 - 3) Supplies and procedure for clean up should a spill occur,
 - 4) regular informational training for all employed in the Work, and
 - 5) identify any additional and necessary precautions where near or over or beneath surface waters, Sewer and Storm Drain, natural drainage system, wetland, reservoirs, and similar areas and Structures.

In addition to the foregoing, the Owner may specifically require the Contractor to provide additional information which, in the sole judgment of Owner, are reasonably necessary to address containment of spills and discharges of contaminants.

1-07.5(6) ARCHAEOLOGICAL AND HISTORIC PRESERVATION

Should the Contractor discover during any construction activity or in any other way discover any artifacts, skeletal remains, or other archaeological resources (as defined under RCW 27.53.040) at the Project Site, it shall be the responsibility of the Contractor to both immediately cease construction activity at the discovery site and surrounding area, and promptly notify the

Engineer. If ordered by the Engineer, the Contractor shall suspend construction activity that, in the opinion of the Engineer, would be in violation of Chapter 27.53 RCW.

Suspension of this construction activity shall remain in effect until the Engineer has obtained permission to proceed from the State Historic Preservation Officer or from other authority.

1-07.5(7) THREATENED AND ENDANGERED SPECIES

The Contractor shall prevent the harming of threatened and endangered species, and all critical habitat associated with threatened and endangered species as required by the federal Endangered Species Act (ESA), as may be applicable.

1-07.5(8) CONSTRUCTION WITHIN AND ADJACENT TO WATER

In addition to other requirements in Section 1-07.5, the Contractor shall comply with the Rivers and Harbor Act, the Clean Water Act, and the Water Resources Development Act, as may be applicable.

1-07.5(9) WETLANDS

Wetlands are defined as those areas inundated or saturated by ground or surface water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Disposal of material within a wetland area will not be allowed without a Section 404 permit issued by the U.S. Army Corps of Engineers and approval by the local agency with jurisdiction over the wetland.

1-07.5(10) LIABILITY AND PAYMENT

The Contractor shall be liable for the payment of all fines and penalties resulting from failure to comply with the federal, State and local pollution control regulations. Except as may be otherwise provided for in the Contract, costs pertaining to the prevention, containment or cleanup of environmental pollution and the preservation of public natural resources as outlined in the Contract shall be considered as incidental to the Work and such costs shall be at the Contractor's sole expense.

1-07.6 PERMITS AND LICENSES

Unless otherwise specified in the Contract, the Contractor shall obtain all required permits and licenses for the performance of the Work, shall give any notices such permits and licenses may require, shall comply with all requirements of said permits and licenses, and shall not proceed with any portion of the Work until the requisite permit has been obtained and a copy delivered to the Owner. Permits and licenses obtained by the Owner will be referenced or included in the Contract. The costs of permits and licenses obtained by the Contractor shall be included in the Bid item prices for the Work.

The Owner will support the Contractor in efforts to obtain a temporary operating permit in the Contractor's name if:

1. A local rule or an agency policy prevents issuing the permit to a private firm;
2. The Contractor takes all action to obtain the permit;
3. The permit will serve the public interest;
4. The permit applies only to Work under the Contract;
5. The Contractor agrees in writing:
 - (a) to comply with all the issuing agency requires, and
 - (b) to hold the Owner harmless for any Work-related liability incurred under the permit; and
6. The permit costs the Owner nothing.

1-07.7 LOAD LIMITS

1-07.7(1) GENERAL

While moving equipment and Materials on any public Right-Of-Way, the Contractor shall comply with all laws and regulation affecting motor vehicle traffic and limits loads. The Contract does not exempt the Contractor from such laws nor does it license overloads. At the Engineer's request, the Contractor shall provide any information needed to determine the weight of equipment on the roadway.

The Contractor is responsible for any damage to any public Right-Of-Way caused by overweight equipment, whether under permit or otherwise.

1-07.7(2) LOAD-LIMIT RESTRICTIONS

The following load limits shall apply to:

1. **Structures Designed for Direct Bearing of Live Loads:** On these Structures, the gross or maximum load on each individual vehicle axle shall not exceed the legal load limit by more than 35 percent. No more than one vehicle shall operate over any Structure at one time.
2. **Underpasses and Reinforced Concrete Box Culverts Under Embankments:** Over these Structures, maximum loads shall be 24,000 pounds on a single axle and 16,000 pounds each on tandem axles spaced less than 10 feet apart, provided that:
 - a. The embankment has been built in accordance with Section 2-03.3(14).
 - b. The embankment has reached at least 3 feet above the top of the underpass or Culvert. When the embankment has reached 5 feet above the top of the Culvert or underpass, the Contractor may increase axle loads up to 100,000 pounds each if outside wheel spacing is at least 7 feet on centers on the axle.

3. **Pipe Culverts and Sewer Pipes:** Loads over pipe Culverts and sewer pipes shall not exceed 24,000 pounds on a single axle and 16,000 pounds each on tandem axles spaced less than 10 feet apart. These limits are permitted only if:
- The Culvert or pipe has been installed and backfilled to specifications, and
 - The embankment has reached at least 2 feet above the top limit of pipe compaction.

When the embankment has reached 5 feet above the top limit of pipe compaction, the Contractor may increase per-axle loads up to 100,000 pounds if outside wheel spacing is at least 7 feet on centers on the axle centers, except that:

- For Class III reinforced concrete pipes, the embankment shall have risen above the top limit of compaction at least 6 feet.
- For Class II reinforced concrete pipes, the maximum load for each axle shall be 80,000 pounds if outside wheel spacing is at least 7 feet on axle centers. In this case, the embankment shall have risen above the top limit of compaction at least 6 feet.

1-07.8 **RESERVED**

1-07.9 **WAGES**

1-07.9(1) **PREVAILING WAGE RATES**

1-07.9(1)A **GENERAL**

The Work is subject to the wage requirements of RCW Chapter 39.12 (Prevailing Wages on Public Works), RCW Chapter 49.28 (Hours of Labor), and to RCW Chapter 49.46 (Minimum Wage Act) as amended or supplemented. On Projects funded in whole or part from federal monies, federal wage laws and rules shall also apply.

When the Work is subject to both the provisions of the State (RCW Chapter 39.12) and federal (Davis-Bacon and related acts) prevailing wage requirements, the Contractor and every Subcontractor must pay at least the State prevailing wage rates, if they are higher than the federal prevailing wage rates for the project unless specifically preempted by federal law. When the federal prevailing wage rates are higher than the State prevailing wage rates, the Contractor (and every Subcontractor) shall pay the federal rate as required by federal law.

The Contractor, any Subcontractor and all individuals and firms required to pay prevailing wages per WAC 296-127-010, shall not pay any laborer, worker, or mechanic less than the applicable prevailing hourly wage rates and fringe benefits for said worker's classification. Higher wages and benefits may be paid at the option of the employer.

Pursuant to the provisions of State law, the Contractor, every Subcontractor, and all other individuals or firms required to pay prevailing wages for Work performed on this Contract, shall be subject to investigation by the State of Washington Department of Labor and Industries for failing to pay the required prevailing wage to workers, laborers, and mechanics employed on the project. Such investigation may result in the State issuing a notice of violation in accordance with WAC 296-127-150.

To the extent an individual or firm required to pay prevailing wages is found by the Department of Labor and Industries to have violated the requirement to pay the prevailing rate of wage, the unpaid wages shall constitute a lien against the Contractor's Bond and retainage. Consistent with RCW 39.12.065 and 39.12.050, the Contractor or Subcontractor may also be subject to civil penalties and may be prohibited from Bidding on any public works contract within the State of Washington for the period specified by law.

It shall be the sole responsibility of the Contractor to assign the appropriate classification to all laborers, workers or mechanics who perform any Work pursuant to this Contract, in conformance with the scope of work descriptions of the Industrial Statistician of the Washington State Department of Labor and Industries. It shall also be the Contractor's sole responsibility to ascertain the applicable prevailing rate of wage for each such classification. Laborers, workers, and mechanics must be paid in full at least once each week and in lawful money of the United States.

The Owner holds the Contractor responsible for compliance of all Subcontractors with payroll reporting requirements and payment of prevailing wages.

The Project Manual includes hourly minimum rates for wages and fringe benefits to be paid laborers, workers and mechanics employed in the Work as established by the State Department of Labor and Industries and described in Section 1-07.9(1)C.

Any listing of wages and fringe benefits in the Project Manual for any classification is intended only as a guideline for the Contractor and does not necessarily reflect the most recent classification or prevailing wage rate. Prevailing wage rates will be determined by the Department of Labor and Industries and published only on the first Business Day of February and the first Business Day of August of each year. All prevailing wage rates become effective thirty (30) Days after they are published. Current prevailing wage information may be obtained upon request from the:

Industrial Statistician
Department of Labor and Industries
ESAC Division
P.O. Box 44540
Olympia, WA 98504-4540
(360) 902-5335

For projects funded in whole or part with federal monies, current federal prevailing wage information may be obtained upon request from the:

U.S. Department of Labor
 Employment Standards Administration
 Wage and Hour Division
 71 Stevenson Street
 Suite # 930
 San Francisco, CA 94105
 (415) 975-4851
 (415) 975-4539 FAX

By including wage and fringe benefit rates in the Project Manual, the Owner does not imply that the Contractor will find labor available at those rates. The Contractor shall calculate any amount above the minimums that have to be paid.

If the Contractor employs labor in a classification not listed in the Project Manual, the Contractor, on any projects where only State prevailing wage rates apply, shall request the Industrial Statistician of the Washington State Department of Labor and Industries to determine the correct prevailing wage rate for that classification and locality. If the project is funded in whole or part with federal monies, the Contractor shall request the Industrial Statistician of the Washington State Department of Labor and Industries to determine a State prevailing wage rate for that classification and locality and shall separately request the U.S. Department of Labor to determine a federal prevailing wage rate for that classification and locality. If those wage rates differ, the Contractor shall use the higher wage rate determined.

1-07.9(1)B OVERTIME

Pursuant to the provisions of RCW 49.28 and WAC 296-127-022, work performed on public works contracts will not require the payment of overtime rates for the first two (2) hours worked in excess of eight (8) hours per Day when the employer and employee voluntarily enter into an agreement wherein the employee will work up to ten (10) hours per Day in a four-day week to accomplish forty (40) hours of work.

Recognizing that there may be Days when a full ten (10) hours of work is not available, the remainder of the forty hours may be made up on another work Day or Days within the same work week. However, work performed on Saturdays, Sundays, and Holidays is subject to the established prevailing overtime provisions for a given trade or occupation, as provided in RCW 39.12.

For the purpose of this Section, an agreement must:

1. Have been authorized by employees who bargained collectively with their employers through representatives of their own choosing; or
2. Be obtained in writing, signed, and dated by both parties; and
3. Be entered into individually with each employee; and
4. Be entered into separately for each public works project, except that an employer, at its option, may obtain an annual authorization; and
5. State the name of the public works project with specificity; and
6. Be entered into voluntarily by the employer and employee.

Each employer must retain copies of individual employee authorization agreements for three (3) years from the Completion Date of the Work. Absence of an authorization record for an employee shall be deemed per se evidence of lack of that employee's authorization. Such records are payroll records, subject to the requirements of WAC 296-127-320.

Working more than ten (10) hours on any Calendar Day on a public works project is prohibited except in cases of extraordinary emergency, such as danger to life or property.

Notwithstanding the above provisions, overtime rates must be paid for all hours worked in excess of forty hours per week. For any overtime work performed on a federally funded project in accordance with the agreements referenced above, the Contractor, Subcontractor, and all other individuals or firms required to pay prevailing wages, must submit a copy of such authorization agreement for each affected employee to PCSD, physical address: Seattle Municipal Tower, Suite 4112, 700 Fifth Avenue, mailing address: P.O. Box 94687, Seattle, Washington 98124-4687.

1-07.9(1)C EFFECTIVE DATE FOR DETERMINING PREVAILING WAGES

In accordance with WAC 296-127-011, the effective date for determining State prevailing wages will be the Bid Opening Date, provided the Contract is Awarded within six months after Bids are due. If the Contract is not Awarded within six months after Bids are due, the effective date for determining prevailing wages shall be the Award Date of the Contract. If the Contract is not Awarded pursuant to Bids (e.g. emergency Contracts), the effective date for determining prevailing wages shall be the date when the Contract is executed.

For a project funded in whole or part with federal monies, the effective date for determining prevailing wages shall be ten (10) Days prior to the date Bids are due provided the Contract is Awarded within ninety (90) Days after Bids are due, unless the Engineer determines there is sufficient time to notify Bidders by Addendum of changes in the prevailing wage rates up to the date of Bid opening, in which case those changed prevailing wage rates shall apply. If the Contract is not Awarded within ninety (90) Days after the Bids are due, the effective date for determining prevailing wages shall be the Award Date of the Contract.

1-07.9(1)D PAYROLL REPORTS

On any project that is federally funded, payroll reports for the Contractor, every Subcontractor, and all other individuals or firms required to pay prevailing wages for Work performed on this Contract shall be submitted weekly to PCSD of the Department of Executive Administration, City of Seattle, Seattle Municipal Tower, physical address: Suite 4112, 700

Fifth Avenue, mailing address: P.O. Box 94687, Seattle, Washington 98124-4687 within 72 hours after the expiration of each pay period. On a non-federally funded project, the Owner and Engineer reserve the right to request payroll reports from the Contractor, every Subcontractor, and all other individuals or firms required to pay prevailing wages for Work performed on this Contract. When required or requested, the payroll reports shall contain the following information:

1. Name and residence address of each worker.
2. Social Security number of each worker.
3. Classification of work performed by each worker. The classification must be specific and match the classification categories listed in the Project Manual.
4. Total number of hours employed each Day.
5. Total number of hours employed during the payroll period.
6. Straight time and overtime hourly rate of wages paid to each worker.
7. Total or gross amount earned by each worker.
8. Deductions for Medical Aid, FICA, federal withholding tax, and any other deductions taken.
9. Net amount paid each worker.
10. Contractor's (or Subcontractor's) name and address.
11. Days and dates worked.
12. Date of final Day of pay period.
13. Whether fringe benefits were paid to each worker as part of the hourly wage rate or whether fringe benefits were paid into an approved plan, fund, or program.

Payrolls may be submitted on federal payroll form WH-347 (or equivalent), which may be obtained by contacting the Government Printing Office's toll free number (866) 512-1800, 7:30 AM to 4:30 PM Eastern Time, or by accessing their web-site at <http://bookstore.gpo.gov>. The reverse side of the form contains an Affidavit that must be filled out and signed. If the Contractor's payroll reports are computerized, the computerized reports may be submitted along with a Statement of Compliance Affidavit form, which may be photocopied from the sample in the Project Manual.

The first payroll submitted for the Work for both the Contractor and each Subcontractor shall be labeled "Initial". The last payroll submitted for the Work for both the Contractor and each Subcontractor shall be labeled "Final". Payrolls shall be sequentially numbered for all periods in which Work is performed.

1-07.9(2) POSTING NOTICES

The Contractor shall post in a location acceptable to the Washington State Department of Labor and Industries ("State L&I"), and in compliance with the requirements of RCW 39.12.020:

1. One copy of the approved "Statement of Intent to Pay Prevailing Wages" for the Contractor, each Subcontractor regardless of tier, and any other individual or firm required to pay prevailing wages per WAC 296-127-010.
2. The address and telephone number of the Industrial Statistician, State L&I (along with notice that complaints or questions about wage rates may be directed there).

1-07.9(3) APPRENTICES

A laborer, worker, or mechanic employed on the Work for whom an apprentice agreement is registered and approved by the State Apprenticeship Council pursuant to Chapter 49.04 RCW within 60 Days of hiring may be paid the applicable prevailing hourly rate for an apprentice of that trade. If formal registration with the State Apprenticeship Council is not accomplished within 60 Days of hiring, the laborer, worker or mechanic must be paid the prevailing hourly journey level rate for all hours worked on the Contract until an apprenticeship agreement is registered.

If the Contractor or Subcontractor of any tier make use of an apprentice on work also governed by federal wage rates and regulations, the Contractor shall present to the Owner written evidence of registration of such employees in a program approved by the Washington State Apprenticeship Council and recognized by the U.S. Bureau of Apprenticeship and Training. On any Project that is federally funded and where submission of payroll reports is required, such evidence shall be submitted with the first payroll upon which the name of the employee appears. In the absence of such a State apprenticeship council program, the Contractor shall submit evidence of approval and registration by the U.S. Bureau of Apprenticeship and Training.

1-07.9(4) PREVAILING WAGE DISPUTES

In the event any dispute arises as to what the prevailing wages are for this Contract, and the dispute cannot be resolved by the parties involved, the matter shall be referred to the Director of the Department of Labor and Industries of the State of Washington when such dispute involves State prevailing wage rates. In such case, the Director's decision shall be final, conclusive, and binding on all parties.

If the dispute involves a federal prevailing wage rate, the matter shall be referred to the U.S. Secretary of Labor for a decision. In such case, the Secretary's decision shall be final, conclusive, and binding on all parties.

When the Work is subject to both State and federal prevailing wage requirements, the Contractor and every Subcontractor shall comply with whichever standard is higher.

1-07.9(5) REQUIRED DOCUMENTS

Before payment is made by the Owner of any sums due under this Contract, the Contractor and each Subcontractor regardless of tier shall submit to PCSD, a copy of a "Statement of Intent to Pay Prevailing Wages" (form F700-029-000), approved by the Industrial Statistician of the Washington State Department of Labor and Industries.

Upon completion of the Work and before any funds retained under RCW Chapter 60.28 can be released to the Contractor, the Contractor and each Subcontractor regardless of tier shall deliver to PCSD, a copy of a "Affidavit of Wages

Paid" (form L700-007-000), approved by the Industrial Statistician of the Washington State Department of Labor and Industries. These forms, along with other requirements outlined in Section 1.09.9(2), must be submitted by the Contractor to PCSD before any funds retained under RCW 60.28.011 will be released to the Contractor.

A fee of \$25.00 per each "Statement of Intent to Pay Prevailing Wages" and "Affidavit of Wages Paid" is required to accompany each form submitted to the State of Washington Department of Labor and Industries by the Contractor or any Subcontractor. The Contractor or Subcontractor, as applicable, shall be responsible for payment of these fees and shall submit all forms directly to the State of Washington Department of Labor and Industries for approval. The cost of these fees shall be included in the Bid item prices that comprise this Contract.

The required forms specified herein may be obtained from the Department of Labor and Industries at the following website:

<http://www.lni.wa.gov/TradesLicensing/PrevWage/default.asp>.

Each progress estimate submitted to the Engineer for payment shall include or have attached a statement signed by the Contractor that the prevailing wages have been paid in accordance with the pre-filed Statement of Intent to Pay Prevailing Wages as specified in the first paragraph of Section 1-07.9(5), or the estimate will not be paid.

The following is a sample of the wording required:

"Project: _____ PW#: _____

I certify that the prevailing wages have been paid in accordance with the pre-filed Statement or Statements of Intent to Pay Prevailing Wages on file with the Purchasing and Contracting Services Division of the Department of Executive Administration for the period covering

_____, 20____ to _____, 20____

Contractor Signature"

This letter shall be signed by an authorized representative of the Contractor prior to payment of any voucher pursuant to RCW 39.12.040.

Submittals shall be made to:

Purchasing and Contracting Services Division
City of Seattle Department of Executive Administration
physical address:
Seattle Municipal Tower, Suite 4112
700 Fifth Avenue
mailing address:
P.O. Box 94687
Seattle, Washington 98124-4687
Telephone (206) 684-0430
Fax (206) 684-4511

1-07.9(6) AUDITS

Payroll, wage, and cost records shall be retained, and may be audited or inspected, as permitted by Section 1-09.12.

1-07.10 RESERVED

1-07.11 EQUAL BENEFITS, AFFIRMATIVE EFFORTS, EQUAL EMPLOYMENT OPPORTUNITY, AND NON-DISCRIMINATION REQUIREMENTS

1-07.11(1) EQUAL BENEFITS

The Contractor shall comply with the requirements of SMC Ch. 20.45 and the Equal Benefits Program Rules implementing such requirements, under which the Contractor is obligated to provide the same or equivalent benefits ("equal benefits") to its employees with domestic partners as the Contractor provides to its employees with spouses. At the Owner's request, the Contractor shall provide complete information and verification of the Contractor's compliance with SMC Ch. 20.45.

For further information about, SMC Ch. 20.45, and the Equal Benefits Program Rules call (206) 684-0430 or refer to <http://cityofseattle.net/contract/equalbenefits/>.

- A. Evaluation of the Contractor's compliance with the Equal Benefits requirement will be based on the following criteria:
 - 1. A domestic partner is a person (same sex or opposite sex partner``) whose domestic partnership is registered either with the employer's internal registry or with a local government entity, pursuant to state or local law.
 - 2. Any and all benefits must be provided equally to spouses and domestic partners, including but not limited to health insurance, dental insurance, vision insurance, pension, company discounts, and credit union membership.
 - 3. The conditions for use of benefits including but not limited to bereavement leave, family medical leave, childcare leave, employee assistance programs, and relocation and travel benefits, must be applied equally with respect to spouses and domestic partners.
 - 4. Equal benefits must be offered to all employees at all offices where substantive work on the contract with the City of Seattle is being performed.
- B. Reporting Requirements: If applicable, the Apparent Low Bidder must submit the Equal Benefits Compliance Work Sheet and Declaration to the PCSD representative within seven (7) Working Days after receiving the request from the PCSD representative.
- C. Any violation of this Section shall be a material breach of Contract for which the City may:
 - 1. Require the Contractor to pay actual damages for each day that the Contractor is in violation of SMC Ch. 20.45 during the term of the Contract; or
 - 2. Terminate the Contract; or
 - 3. Disqualify the Contractor from bidding on or being awarded a City contract for a period of up to five (5) years; or
 - 4. Impose such other remedies as specifically provided for in SMC Ch. 20.45 and the Equal Benefits Program Rules promulgated thereunder.

1-07.11(2) WOMEN AND MINORITY BUSINESS ENTERPRISE AFFIRMATIVE EFFORTS AND NON-DISCRIMINATION REQUIREMENTS

In SMC Ch. 20.42.010, the Owner has found that minority and women businesses are significantly under-represented and have been underutilized on City of Seattle contracts. Additionally, the Owner does not want to enter into agreements with businesses that discriminate in employment or the provision of services. The Owner intends to provide the maximum practicable opportunity allowed by law for increased participation by minority and women owned and controlled businesses, as long as such businesses are underrepresented, and to ensure that the Owner's contracting practices do not support discrimination in employment and services when the Owner procures public works, goods, and services from the private sector. The Owner will not enter into contracts with Contractors that do not agree to use Affirmative Efforts to employ women and minority group members as required under SMC Ch. 20.42 or who violate any provisions of that chapter, or those requirements set forth below.

The Contractor shall comply with the provisions of RCW 35.22.650, which provides:

"Contractor agrees that the contractor shall actively solicit the employment of minority group members. Contractor further agrees that the contractor shall actively solicit bids for the subcontracting of goods or services from qualified minority businesses. Contractor shall furnish evidence of the contractor's compliance with these requirements of minority employment and solicitation. Contractor further agrees to consider the grant of subcontracts to said minority bidders on the basis of substantially equal proposals in the light most favorable to said minority businesses. The contractor shall be required to submit evidence of compliance with this section as part of the bid.

As used in this section, the term "minority business" means a business at least fifty-one percent of which is owned by minority group members."

The Contractor shall comply with the City's Fair Contracting Practices Ordinance law (SMC Ch. 14.10, as amended), which prohibits discrimination in contracting practices.

The Contractor shall not create barriers to open and fair opportunities for WMBEs to participate in any City contracts and to obtain or compete for contracts and subcontracts as sources of supplies, equipment, construction and services.

Contractor shall utilize Affirmative Efforts to promote and encourage participation by women and minority businesses on subcontracting opportunities within the Contract scope of work. Contractor agrees to such efforts as a condition of the Contract.

- A. Affirmative Efforts shall include efforts to achieve the activities specified in the Construction Outreach Plan the Contractor submitted in accordance with Section 1-03. This Construction Outreach Plan is a part of the Contract. Although it is not a requirement to actually achieve the goals set forth in the Construction Outreach Plan, the

Contractor agrees to make efforts to attempt to achieve any goals specified in the Construction Outreach Plan for subcontracting to women and minority-owned subcontractors portions of the scope of work that present subcontracting opportunities. The Contractor shall be solely responsible for any efforts made and costs incurred to meet such goals.

B. Reporting Requirements:

1. If applicable, the Contractor must submit a Constuction Outreach Plan as indicated in Section 1-02.1(4).
2. The Contractor's must submit the first Subcontractor Payment Report no later than the 15th of the first month after the Contract start date specified in the Notice to Proceed. Subsequent Monthly Subcontractor Payment Reports must be submitted by the 15th day of every month thereafter, until the Substantial Completion Date. When no work is performed during a reporting period, the subcontractor must submit monthly report(s) indicating that no work was performed. The Contractor must appropriately mark the "final" Monthly Subcontractor Payment Report to indicate that the subcontractor's work is complete.

1-07.11(3) EMPLOYMENT AFFIRMATIVE EFFORTS REQUIREMENTS

The City encourages Contractors to employ a workforce reflective of the region's diversity. The Contractor shall comply with all non-discrimination requirements as set forth in Federal, State, and City of Seattle laws and regulations. Historically, the City included the following Voluntary Goals for women and minorities on its construction contracts: 21% minority and 20% women, with a 4.5% subgoal of minority women. (NOTE: These Voluntary Goals are provided for historical information purposes only and are not to be considered as a utilization requirement by the Contractor.) The Contractor shall include a requirement in every subcontract that Subcontractors shall adhere to the non-discrimination requirements as set forth in Federal, State, and City laws and regulations.

The Contractor shall not discriminate against any employee or applicant for employment, and will make Affirmative Efforts to ensure that applicants are employed, and that applicants are treated during employment without regard to race, color, age, sex, marital status, sexual orientation, gender identity, political ideology, creed, religion, ancestry, national origin; or the presence of any sensory, mental or physical handicap, unless based upon a bona fide occupational qualification. Such Efforts shall include, but not be limited to the following: employment, upgrading, promotion, demotion, or transfer; recruitment or recruitment advertising, layoff or termination, rates of pay, or other forms of compensation and selection for training, including apprenticeship.

The City encourages the Contractor to meet the employment Voluntary Goals the Contractor specified in its Construction Outreach Plan. The Contractor shall be completely responsible for the Affirmative Efforts made to meet the Voluntary Goal; however, no utilization requirements or minimum level of women or minority employment is required under this Contract.

Equal Employment Opportunity Officer: The Contractor shall designate in its Construction Outreach Plan the Contractor's Equal Employment Opportunity Officer (hereinafter referred to as the "EEO Officer"). The EEO Officer shall possess the responsibility, authority, and capability for effectively administering and promoting an active program of equal employment opportunity, and for implementing any Voluntary Goals and Affirmative Efforts requirements of this Contract.

1-07.11(4) RESPONSIBILITIES

The Contractor shall ensure that all employees, particularly supervisors, are aware of, and adhere to their obligation to maintain a working environment free from discriminatory conduct, including, but not limited to, harassment and intimidation of minorities and women, or WMBE businesses.

1-07.11(5) RECORDS

The Contractor shall furnish to the Department of Executive Administration, upon request and on such form as may be provided, reports pertaining to participation or Voluntary Goals. The Contractor shall permit access to its records of employment, bidding, and subcontracting, and other pertinent data requested by the City to determine compliance with these requirements. Records shall be available at reasonable times and places for inspection by authorized representatives of the Owner.

The Contractor shall maintain, for at least 24 months after the Completion Date, relevant records and information necessary to document the Contractor's Affirmative Efforts to use WMBEs and other businesses as Subcontractors and Suppliers under the Contract. The Owner shall have the right to inspect and copy such records. The Contractor shall also require of its Subcontractors that the records of the Subcontractors be retained and open to similar inspection and copying for the same period of time.

1-07.11(6) VIOLATIONS

Any violation of the mandatory requirements of the provisions of this Section, or a violation of SMC Ch. 14.04, SMC Ch. 14.10, SMC Ch. 20.42, SMC Ch. 20.45 or other local, state or federal non-discrimination laws, shall be a material breach of the Contract for which the Contractor may be subject to damages and sanctions, including but not limited to payment of full compensation to employees entitled to receive equal benefits during the term of the Contract who did not receive such benefits, imposition of a civil fine or forfeiture under the Seattle Criminal Code as well as various civil remedies, suspension or termination of the Contract and/or the withholding of any funds due or to become due, or debarment in accordance with SMC Ch. 20.70.

1-07.11(7) TECHNICAL ASSISTANCE

The City provides assistance to contractors that desire to bid on, or have been awarded a City contract, to comply with equal opportunity, non-discrimination, and Affirmative Efforts provisions. Should a contractor desire assistance or information in recruiting, tutoring, and training or otherwise preparing potential employees and Subcontractors, a contractor may contact PCSD of DEA at 206-684-0430.

Examples of Affirmative Efforts: The following are examples of Affirmative Efforts the Bidder may utilize in achieving compliance with the requirements of this Section.

- a. Attending a pre-Bid or pre-solicitation conference, if scheduled by the Owner, to provide Project information and to inform WMBEs of contracting and subcontracting opportunities.
- b. Placing all qualified WMBEs attempting to do business in The City of Seattle on solicitation lists, and providing Written Notice of subcontracting opportunities to WMBEs Capable of performing the Work, including without limitation all businesses on any list provided by The City of Seattle, in sufficient time to allow such businesses to respond to the written solicitations.
- c. Breaking down total requirements into smaller tasks or quantities, where economically feasible, in order to permit maximum participation by small businesses including WMBEs.
- d. Establishing delivery schedules, where the requirements of this Project permit, that encourage participation by WMBEs.
- e. Providing WMBEs that express interest with adequate and timely information about plans, specifications, and requirements of this Project.
- f. Utilizing the services of available minority community organizations, minority contractor groups, local minority assistance offices, The City of Seattle, and other organizations that provide assistance in the recruitment and placement of WMBEs.

1-07.11(8) APPRENTICE UTILIZATION AND EEO REPORTING

The following Apprenticeship requirements apply to projects with an Engineer's Estimate of over \$1,000,000.00.

1-07.11 (8)A GENERAL

Notwithstanding any other provisions in the Project Manual, this Contract does not require any specific levels of utilization of minority and women as apprentices, except as may be specified in any federal regulations or statutes included or referenced in the Contract documents. All other requirements of the City's apprenticeship program shall apply as specified in the Contract documents. The City encourages the Contractor to employ a workforce reflective of the region's diversity. The Contractor shall adhere to all non-discrimination requirements as set forth in Federal and State laws and regulations and Seattle municipal code provisions.

The Owner has determined that there is a need for increased training and apprenticeship opportunities in the construction industry and that a diverse and well trained workforce is critical to the economic as well as social vitality of the region. In addition, the Owner has determined that compliance by the Contractor with the apprentice utilization requirements of the Contract must be consistent with the provisions of Chapter 49.04 RCW and Chapter 296.04 WAC.

In establishing requirements for the use of apprentices on the Project, it is the Owner's intent to encourage the training and promotion of apprentices to journey level status.

Any questions, monthly reports, or other submittals regarding the apprentice utilization requirement of the Contract shall be directed to:

Purchasing and Contracting Services Division
 City of Seattle Department of Executive Administration
 Seattle Municipal Tower, Suite 4112
 700 5th Avenue
 P.O. Box 94687
 Seattle, Washington 98124-4687
 Telephone: (206) 634-0430

1-07.11(8)B APPRENTICE UTILIZATION REQUIREMENTS AND GOALS

The total Apprentice Utilization Requirement for this Project shall be:

15%

The Contractor shall ensure that the above percentage of the total Contract labor hours utilized on the Project are performed by apprentices registered with the Washington State Apprenticeship and Training Council, hereinafter know as SAC.

1. Total Contract labor hours include additional hours worked as result of Change Orders.

2. Total Contract labor hours exclude hours worked by foremen, superintendents, supervisors, owners, and workers who are not subject to prevailing wage requirements. However, it may be determined that they are subject to prevailing wage requirements pursuant to the following criteria of WAC 296-127-015:

Two (2) supervisors (e.g. foreman, general foreman, superintendents, etc) are entitled to receive at least the journey level prevailing rate of wage for performing manual or physical labor:

- a. For each hour spent in the performance of manual or physical labor if it is for more than 20 percent by less than fifty percent of their hours worked on a public works project during any given week.
- b. For all hours worked in any given week if they perform manual or physical labor for fifty percent or more of their hours worked on a public works project during such week.

The Contractor shall include the apprentice utilization requirements of Section 1-07.11(8)B in all subcontracts executed for the Project, and ensure that all Subcontractors working on the Project are notified of the apprentice utilization requirements. The Contractor is responsible for meeting the apprentice utilization requirements of the Contract, including overall compliance on all Contract labor hours worked by Subcontractors.

The Contractor shall make good faith efforts to:

1. Ensure that apprentice hours worked are equally distributed in each trade/craft and consistent with the apprentice utilization percentage requirement of the Contract.
2. Recruit and hire minority and women apprentices for the Project. Of the total apprentice utilization requirement percentage, the Contractor shall pursue a goal of using twenty-one (21%) labor hours performed by minority apprentices and twenty percent (20%) labor hours performed by women apprentices.

The Contractor shall ensure compliance with the apprenticeship training standards for each trade/craft classification used on the Project, as set forth by the Washington State Department of Labor and Industries.

1-07.11(8)C APPRENTICE UTILIZATION PLAN

On or before the date of the pre-construction meeting, the Contractor shall submit to the Department of Executive Administration, a comprehensive plan outlining how the apprentice utilization requirements will be met on the total Contract labor hours. The plan shall include the following information, on a form to be provided by the Owner or by accessing <http://www.cityofseattle.net/contract/apprentice.htm>.

1. A list of all trades/crafts to be used on the Project, including an estimate of labor hours by trade/craft and the total labor hours to be used.
2. An estimate of the number of apprentices for each trade/craft to be used on the Project.
3. An estimate of the number of apprentice labor hours and percentage to be used by each trade/craft on the Project. The combined total number of apprentice hours used must equal or exceed the required apprentice utilization percentage.
4. An estimate of the percentage of apprentice labor hours to be used by each trade/craft. The percentage of apprentice labor hours must be based on the estimate of total labor hours by each trade/craft.
5. An estimate of the state date for each trade/craft.
6. A description of efforts the Contractor intends to make to ensure that the apprentice utilization requirement and goals are met.
7. A description of any assistance the Contractor believes will be necessary from the Owner to meet the apprentice utilization requirement and goals.

The Department of Executive Administration will provide assistance in directing the Contractor to available resources for hiring apprentices.

The Contractor, the Engineer, and the Department of Executive Administration shall meet to discuss and modify the plan as may be appropriate.

1-07.11(8)D CHANGES TO THE APPRENTICE UTILIZATION REQUIREMENT

If, during the term of the Contract, the Contractor determines that it will be unable to meet the apprentice utilization percentage required by Section 1-07.11(8)B2, the Contractor may make a written request to the Engineer, (directed to the Department of Executive Administration), to reduce the required apprentice utilization percentage. The request shall include documentation of the Contractor's affirmative efforts to use SAC registered programs, union locals, and others. These documents must demonstrate that an inadequate number of apprentices are available to meet the required apprentice utilization percentage.

1-07.11(8)E MONTHLY EEO/APPRENTICE UTILIZATION REPORT

The Contractor shall submit to the Department of Executive Administration a Monthly EEO/Apprentice Utilization Report in an electronic format to be provided by the Owner, for the Contractor and all Subcontractors. The Monthly

EEO/Apprentice Utilization Report form shall be completed by the Contractor and all Subcontractors performing work on the Project during the reporting period. (Forms are available by calling (206) 684-0430 or by accessing <http://www.seattle.gov/contract/apprentice.htm>. The report shall be submitted by the 15th of the month following the reporting period to the Department of Executive Administration. A copy shall be sent to the Engineer.

The Contractor shall be responsible for reporting apprentice utilization data required by the owner beginning with the first day of work for each apprentice. The Contractor's first submittals are due at the end of the first month after the Notice to Proceed Date, and at monthly intervals thereafter, until the Physical Completion Date has been established. Subcontractor submittals are due at the end of the month after commencement of their work and monthly thereafter.

The Contractor shall report the following information on each apprentice:

1. Apprentice's Name
2. Social Security Number
3. Home Zip Code
4. Employment Status: New Hire or Existing Staff
5. Trade/Craft
6. State Apprentice Registration I.D. Number
7. Program Sponsor and/or Hiring Source
8. Apprentice Progression Period or Percentage
9. Ethnicity/Gender
10. Labor hours for Reporting Period by Ethnicity/Gender
11. Total labor hours and number of apprentice employees for reporting period by ethnicity/gender.
12. Total apprentice labor hours and number of employees to-date
13. Summary information as noted on the form.

The Contractor shall report the following information on journey level employees:

1. Labor hours for reporting period by ethnicity/gender, for each trade/craft.
2. Total journey level labor hours by ethnicity for each trade/craft.
3. Total labor hours and number of journey level employees for reporting period by ethnicity/gender.
4. Total journey level labor hours and number of employees to date.
5. Summary information as noted on the reporting form.

The Contractor shall submit such other information as may be requested by the Owner to verify compliance with the apprentice utilization requirements of the Contract. The Owner reserves the right to add, delete, change as necessary the information required by the Contractor on a Monthly EEO/Apprentice Utilization Report form.

1-07.11(8)F MONITORING

The Department of Executive Administration will verify the registration of each apprentice used on the Project with the Washington State Apprenticeship and Training Council.

The Department of Executive Administration will monitor the apprentice utilization data provided by the Contractor. In the event that the Contractor is deficient in the use of apprentices, the Department of Executive Administration and the Engineer will meet with the Contractor to discuss the reasons for the deficiency and help the Contractor develop a written plan for meeting the requirement.

The Owner will make routine visits to the Project Site for the purpose of confirming the use of apprentices.

1-07.12 RESERVED

1-07.13 CONTRACTOR'S RESPONSIBILITY FOR WORK AND DAMAGE

1-07.13(1) GENERAL

Except as provided for otherwise in the Contract, the Work, including Change Order Work, shall be at the sole risk of the Contractor until the Completion Date. Until such date, damage to, or destruction of, either permanent or temporary portions of the Work, existing utilities, street improvements, Materials, or equipment and plant shall be promptly rebuilt, restored, repaired, corrected or replaced by the Contractor, at the Contractor's expense, regardless of the cause of damage.

Exceptions to the above shall be limited exclusively to the following:

1. Damage to the permanent Work caused by acts of nature, such as earthquake, flood or other cataclysmic phenomenon of nature.
2. An act of the public enemy or a government authority.
3. A slide occurring on a finished slope after the Physical Completion Date of the Work; provided, however, that this exception shall not apply should damages be by reason of the Contractor's failure to comply with the Contractor's contractual responsibilities or to perform sound engineering and construction practices in the conduct of the Work, or to take reasonable precautions under the circumstances.

4. Third party damage or vandalism occurring after the Physical Completion Date.

If the performance of the Work is delayed as a result of damage by one or more others not party to the Contract, an extension of time will be evaluated in accordance with Section 1-08.8.

Damage qualifying under any of the exceptions listed in Section 1-07.13(1) above shall be corrected promptly when ordered by the Engineer, and compensation will be made in accordance with Section 1-04.4. Where public safety is affected and an emergency exists, the Engineer may elect to accomplish repair by means of Owner forces or other forces as permitted by Section 1-05.8.

Nothing contained in this Section shall be construed as relieving the Contractor of responsibility for, or damage resulting from, the Contractor's operations or negligence, or the operations or negligence of any of the Contractor's Subcontractors, nor shall the Contractor be relieved from full responsibility for making good any defective Work or unauthorized Work.

The Contractor shall bear sole responsibility for:

1. Damage to property located within or outside the Project Site limits caused by erosion, siltation, run-off, or other related cause as a result of any construction operation.
2. Any pollution of a river, stream, ground water, or other water that may occur as a result of any construction operation.

1-07.13(2) RELIEF OF RESPONSIBILITY FOR COMPLETED WORK

Upon written request, the Contractor may be relieved of the duty of maintaining and protecting certain portions of the Work, as described in this Section 1-07.13(2) that have been completed in all respects in accordance with the requirements of the Contract. If in the sole opinion of the Owner that the release will not affect any past, present or future claims rights of the City, and the Engineer provides written approval, the Contractor may be relieved of the responsibility for damage to said completed portions of the Work, but not from damage resulting from any flaw or defect in materials incorporated into or workmanship of the completed Work or the ongoing operations or negligence of the Contractor or any of its Subcontractors.

Portions of the Work for which the Contractor may be relieved of the duty of maintenance and protection as provided in Section 1-07.13(1) above include but are not limited to the following:

1. The completion of at least two city blocks (approximately 1/4 mile) of roadway including the traveled way, shoulders, drainage control facilities, planned roadway protection Work, lighting, and any required traffic control and access facilities.
2. A bridge or other Structure of major importance.
3. A complete unit of a traffic control signal system or street lighting system.
4. A complete unit of permanent street protection Work.
5. A building that is functionally complete and open to the public.
6. Any Contract Bid item.

1-07.13(3) RELIEF OF RESPONSIBILITY FOR DAMAGE BY PUBLIC TRAFFIC

When it is necessary for public traffic to utilize a roadway facility during construction, the Contractor will be relieved of responsibility for damages to permanent Work by public traffic under the following circumstances:

1. The Work is in accordance with the Contract or approved Drawings.
2. The Work is on a section of roadway required by the Contract to be opened to public traffic, and
3. The traffic control is in accordance with the approved traffic control plans.

If traffic is relocated to another section of roadway, the Contractor shall resume responsibility for the Work until such time as the section of roadway is again open to public traffic or the Contractor submits a written request for Work that is completed to a point where relief can be granted in accordance with Section 1-07.13(2).

1-07.13(4) REPAIR OF DAMAGE

The Contractor shall promptly repair all damage to either temporary or permanent Work as directed by the Engineer. For damage qualifying for relief under Sections 1-07.13(2) or 1-07.13(3), payment will be made in accordance with Section 1-04.4. Payment will be limited to repair of damaged Work only. No payment will be made for delay or disruption to the Work.

The Engineer may elect to accomplish repair by its own forces or other means.

1-07.14 RESERVED

1-07.15 TEMPORARY WATER POLLUTION, EROSION, AND SEDIMENTATION CONTROL

During construction, the Contractor shall incorporate practices that prevent erosion, or control erosion when prevention is unavoidable, and shall make every effort to maintain effective erosion and sediment controls throughout the Work including implementing timely corrective actions as may be necessary. Sediment shall be prevented from entering any surface water, drainage facility, and natural drainage system, and shall be prevented from transport to beyond the Project Site. Work shall comply with Director's Rules based on SMC Chapters 22.800 through 22.808 and other codes addressing grading, stormwater control, ground water control, and other construction controls.

The Contractor shall, submit to the Engineer for review, a Temporary Erosion and Sediment Control (TESC) Plan prepared in accordance with the above regulations, the requirements of Section 8-01, and as may be specified in the Contract. The TESC plan shall name and confirm qualifications for the Contractor's On-Site Erosion Control Lead (see Section 1-05.13(3)). The plan shall be compatible with and shall be coordinated with the Work and Work phasing ensuring a continuance of protection.

1-07.16 PROTECTION AND RESTORATION OF PROPERTY**1-07.16(1) PRIVATE AND PUBLIC PROPERTY**

The Contractor shall protect from damage or destruction, Real Property within or adjacent to the Project Site including improvements thereto and fixtures found under or upon, and all personal property located within or adjacent to the Project Site that is not designated for repair, replacement or removal. The Contractor shall ensure that interference with the use of such property is minimized.

The Contractor shall be aware that underground electrical transmission and distribution conduit and ductbanks are surrounded with cementitious fluidized thermal bedding that shall not be disturbed.

The Contractor is alerted to the existence of cast iron Water Main and of thrust block for Water Main within the Right of Way. Cast iron pipe joints have been known to develop leakage when disturbed by shifting earth, or excessive vibrations, or adverse impacts of any other construction excavation Work. Thrust blocks, typically placed against Water Main tees, bends, and dead ends, provide resistance to forces within the Water Main to prevent separation or other conditions that may lead to leakage of the Water Main. Thrust blocks typically extend beyond the Water Main and depend both on soil friction and on passive soil resistance. The Contractor shall take additional preventative measures both to eliminate adverse impact to cast iron Water Main, and to not disturb existing Water Main thrust block and the soils surrounding the thrust block.

The Contractor shall, at no additional cost to the Owner, provide and install safeguards acceptable to the Engineer to protect public and private property. If public or private property is damaged or destroyed or its use interfered with by the Contractor, the Contractor's agents or the Contractor's employees, such interference shall be terminated and damaged or destroyed property repaired and restored immediately to its former condition by the Contractor at the Contractor's expense. Should the Contractor refuse or not respond promptly to a written request to restore damaged or destroyed property to its original condition, the Engineer may have such property restored by other means at the Contractor's expense as permitted by Section 1-05.8.

The Owner is responsible for the establishment and maintenance of all Right of Way monumentation. Removal or destruction of monuments will not be allowed until the Engineer has witness monuments in place to perpetuate the position of the pre-existing monument. Unless the Contract specifies otherwise, a Contractor performing Work that includes the destruction or removal (even temporarily) of monuments shall at least four (4) Working Days in advance of monument removal or destruction, forward a copy of the initial DNR permit (Ch 332-120 WAC) to the Land Survey Manager, Seattle Public Utilities, physical address: Seattle Municipal Tower, 700 5th Avenue, or mailing address: PO Box 34018, Seattle, WA 98124-4018, and make the notification required in Section 1-07.28 item 17. Within five (5) Working Days after remonumentation, the Contractor shall make the notification specified in Section 1-07.28, item 17, and shall forward a copy of the follow-up DNR permit addressing remonumentation to the Land Survey Manager.

All cost to remonument removed or destroyed monumentation without making the required notification, and without providing copies of both the initial and follow-up DNR permit as required in this Section, shall be at the sole expense of the Contractor. Such cost shall include, but is not limited to replacement survey, survey supervision, remonumentation, necessary documentation and verification, and other direct expense to the Owner.

1-07.16(2) TREE, SHRUB, AND PLANT MATERIAL PROTECTION

Trees, shrubs, and other plant material not designated for removal shall be left in place and protected from damage through the use of protective and preventative measures including but not limited to one or more of the following:

1. Temporary construction fencing,
2. Temporary tie-up of low limbs,
3. Application of a 4 to 6" layer of mulch within the dripline of trees (or wood chips salvaged from site clearing and grubbing),
4. Planking over mulch to protect surface roots from compaction by construction activity,
5. Protection of exposed tree roots with mulch or plastic,
6. Root pruning (contact the Engineer at least two (2) Working Days in advance), and
7. Limb pruning (contact the Engineer at least two (2) Working Days in advance).

See Standard Plan nos. 132, 133, and 134 for tree protections.

Protective measures shall be in place prior to construction impacting said material, and shall apply to all trees and other planted areas.

No storage of equipment or Material shall be allowed within the areas shown on Standard Plan no. 133 that are not designated for removal unless the Engineer has provided advance approval. Steel or 4" thick timber planking, each piece having a minimum 8 square feet nominal, shall be used to support stabilizers or similar support mechanisms set within these areas, or set within a sodded planting strip.

For sidewalk, curb, pavement, driveway, and related construction where roots 2 inch diameter and larger are discovered, the Contractor shall promptly notify the Engineer.

Trenching or tunneling within the dripline of existing trees not designated for removal shall be in accordance with Standard Plan no. 133 defining clearance requirements by root zone. Excavation or tunneling of any kind within the "Critical Root Zone" will not be allowed, and when such excavation or tunneling is required and the Contract does not address, the Contractor shall provide at least two (2) Working Days advance written notice and receive approval of the Engineer. Excavation within the dripline of the tree shall require a submittal from the Contractor identifying the method by which all roots 2" and larger will be retained and protected. Tree root cutting will not be allowed.

Where construction activity involves the operation of equipment or redirection of traffic within the dripline of tree, the Contractor shall submit a plan to the Engineer for approval at least three (3) Working Days in advance addressing pruning and

tying of limbs, and identifying the professional tree service company whose past and current performance is in accordance with ANSI A300 Standards.

Tree and other plant material not ordered or designated for removal that are destroyed or irreparably damaged by the Work as determined by the Engineer, shall be replaced by the Contractor as the Engineer requires at no cost to the Owner. Unless otherwise required, replacements shall be of the same species and, as nearly as possible, the same size as the tree or plant to be replaced. The Contractor shall allow at least two (2) Working Days advance notice for inspection and approval of replacement stock by the Engineer. In addition to the restoration planting, the Contractor shall be assessed damages as the difference in the dollar value between the tree or plant being replaced and the tree or plant material provided based on the "Guide for Establishing Values of Trees and Other Plants" prepared by the Council of Tree and Landscape Appraisers, current edition should such difference be determined by the Engineer. Damages assessed will be deducted from moneys due or that may become due the Contractor.

Tree trimming or removal near overhead power lines requires the advance notification specified In Section 1-07.28, item 10. Tree trimming or removal near METRO or Benson Waterfront Street Car overhead trolley wires requires the advance notification specified in Section 1-07.28, item 2B.

1-07.16(3) FENCES, MAILBOXES, AND MISCELLANEOUS ITEMS

The Contractor shall enclose the work area by installing and maintaining temporary fencing when Work is within easements or abuts private property. The Contractor shall be liable for all damages arising from noncompliance with this Section.

The Contractor shall follow all requirements of the U.S. Postal Service for maintenance and relocation of postal service, collection, and mail receptacles. Where U.S. Postal Service Structures need to be temporarily relocated, the Contractor shall make the notification required in Section 1-07.28. Information to be provided to the Post Office shall include the Location I.D. Number included on the box label or, if no label, the street location; date(s) needed for temporary relocation(s), and approximate date(s) the area(s) impacted by construction will be completed. All U.S. Postal Service Structure relocation will be done by the U.S. Post Office. Access to existing or temporarily relocated postal Structures shall not be impaired. Upon completion of the Work which required the relocation of mail receptacles, the Contractor shall notify the U.S. Postal Service that the box may be reinstalled.

Before any Work limits access to, or disturbs existing mail receptacles or newspaper boxes, the Contractor shall make the notifications required in Section 1-07.28. The temporary location shall not impair their accessibility and usefulness. As soon as possible, the receptacles or boxes shall be reinstalled at their original location, or at other locations directed by the Engineer. New supports or boxes will not be required unless the original boxes or posts were damaged by the Contractor. Replacement or repairs to supports or boxes damaged by the Contractor shall be at the Contractor's expense. Mailbox height shall be in accordance with U.S. Postal Service requirements.

The Contractor shall protect existing curb, gutter and sidewalk from damage utilizing timber pads if necessary.

Where sprinkler systems are encountered in the planting strip, the Contractor shall carefully remove the existing sprinkler system for reinstallation by the Contractor after the Work in the planting strip is complete.

1-07.16(4) PAYMENT

All costs for the protection of property, and for the repair or restoration of damaged or destroyed property, as specified in Section 1-07.16, will be considered incidental to the Work. These costs shall be included in the Bid item prices for the various Bid items of Work listed in the Bid Form.

1-07.17 UTILITIES AND SIMILAR FACILITIES

1-07.17(1) GENERAL

Locations and dimensions shown in the Drawings for existing facilities and utilities are in accordance with available information obtained without uncovering, measuring or other verification.

The Contractor shall protect from damage private and public utilities including appurtenances thereto, and other facilities encountered during the Work. Utilities shall include, but are not limited to, Sewer and Storm Drain systems; water transmission and distribution systems; electrical transmission and distribution systems; natural gas distribution and transmission systems; telephone, telegraph, telecommunications, and CATV systems; fiber optic systems; fire alarm systems; petroleum pipe lines; steam distribution systems; traffic control systems; power lines; METROKC trolley lines and feeders; rail transit infrastructure and appurtenances; pipelines, and pipeline systems, and transmission pipelines, and underground facilities as each are defined in Ch 19.122 RCW; and other similar facilities and systems.

Cast iron Water Main and some Puget Sound Energy gas distribution facilities are known to be sensitive to excessive vibration, possibly resulting in leakage. The Contractor shall exercise appropriate care when construction is near such facilities and shall cooperate with these facility owners in protecting said infrastructure.

Public and private utilities, or their Contractors, will furnish all Work necessary to adjust, relocate, repair, inspect, or construct their facilities unless otherwise provided for in the Contract or as may be ordered by the Engineer. Where it is necessary to remove or relocate utilities and facilities in order to accommodate the Work, the removal or relocation may be accomplished in advance of construction. If this removal or relocation is performed concurrently with the Work, the Contractor shall coordinate the Contract Work with that of the utilities' or facilities' owner or Contractor so as to cause the least possible interference with both kinds of work. Where a utility or facility has not been removed or relocated prior to the Contractor beginning the Work at the point affected, the Contractor shall note the presence of the facility and immediately notify the Engineer in writing.

Attention is directed to the possible existence of underground utilities and facilities that are not shown in the Contract. The Contractor shall comply with all applicable laws and notify all necessary parties, including the one number locator service, upon discovery of any utilities or facilities not shown in the Contract. When the relocation of these utilities or facilities is necessary to accommodate the Work, the Engineer will provide for the relocation of these utilities or facilities by other forces, or the relocation shall be performed by the Contractor as extra Work pursuant to a Change Order.

The Contractor may encounter side Sewers during Work operations. Side Sewers typically extends from a tee or wye connection on a Sewer or Storm Drain to a property. Beyond the property line, the side Sewer may be a single pipe or may branch into multiple pipes. Up to date plats of as-built side Sewer constructions are maintained by the SPU geographic information systems (GIS) staff. GIS mapping is located at the Department of Planning and Development Side Sewer and Drainage counter located at Seattle Municipal Tower, 20th floor, or on-line at the DPD web-site (www.seattle.gov/dpd/Site_Development) or by e-mail request: sidesewerinfo@seattle.gov. It shall be the Contractor's responsibility to locate and protect these existing side Sewers.

The Contractor is also alerted to the existence of RCW Chapter 19.122, an act relating to governing exposure of underground utilities facilities and prescribing penalties for non-compliance. Section 1-07.28 herein prescribes certain notification to be made by the Contractor; however, does not include all notification that may be necessary. Any cost or scheduling impact incurred by the Contractor by reason of Contractor's required compliance with these statutory and contractual provisions shall be borne by the Contractor. No excavation shall begin until all known utilities and facilities near the excavation area have been located and marked, and the Contractor has complied with all applicable provisions of RCW Chapter 19.122.

The right is reserved to the Engineer and the owner of utilities and facilities, or their authorized agents, to enter upon the Right of Way for the purpose of making changes, connections, inspections, or repairs to their facilities, and to monitor construction on or near their utility or facility. The Contractor shall cooperate with forces engaged in this work and shall avoid any unnecessary delay or hindrance to work or monitoring being performed by other forces. It shall be the Contractor's responsibility to make all notifications and applications needed to effectively coordinate utility and Contractor Work.

Should the Contractor desire to have an adjustment in line or grade made on a utility or other improvement for the Contractor's convenience and the rearrangement is in addition to, or different from, that indicated in the Contract, the Contractor shall timely make all necessary notifications and applications with the owner of the utility or other improvement for such rearrangement and bear all expenses in connection with that work. See Section 1-05.3(5).

The Contractor may encounter private water-service utilities during Work operations. The public portion of the water service typically extends from the tap on a Water Main to the water meter and then to the union. Beyond the union, these private water-service utilities may be either a single water-service utility from the water meter or a multiple water-service utility from the water meter. Records of these utilities are not maintained by the Engineer and therefore do not appear on the Drawings and will not be field located by Seattle Public Utilities. The locations of these private utilities can usually be ascertained by relative meter location, residence location, or through discussion with various private property owners. It shall be the Contractor's responsibility to locate and protect these private water services from damage.

If it is necessary to provide temporary water supply connections due to conflict with private water-services during the course of construction, it shall be the responsibility of the Contractor to do so at no additional cost to the Owner.

In all cases, private water-service lines damaged by the Contractor shall be repaired by the Contractor at the Contractor's expense. The Contractor shall notify the Engineer immediately of any such damage and shall begin repairs immediately and work continuously until water service is restored. Repair of damaged private water-service lines shall be inspected by Seattle Public Utilities or applicable water utility prior to backfilling.

Except as otherwise provided in the Contract, all costs incurred by the Contractor in complying with requirements of this Section shall be included in the Bid item prices for the various Bid items of Work listed in the Bid Form. If others delay or otherwise adversely affect the Work through late or improper removal or relocation or inspection of any utility or similar facility, the Contractor's loss of time or increased cost, or both, may be adjusted in accordance with Section 1-08.8.

1-07.17(2) UTILITY CLEARANCES

1-07.17(2)A WATER MAIN CLEARANCES

1-07.17(2)A1 GENERAL

All utilities, both public and private, passing over, under, or parallel to existing Water Main within clearances specified in this subsection 1-07.17(2)A shall be coordinated with Water Operations at least fifteen (15) Working Days in advance of construction for approval of, and coordination with, the Engineer. See Section 1-07.28, item 7 for required notifications. At a minimum, 5 foot separation horizontally from a ductile iron Water Main and 18 inch separation vertically under an existing Water Main shall be provided.

Notifications regarding shutdowns of Water Mains or obstructions of hydrants and valves or not meeting clearance requirements shall be in accordance with Section 1-07.28, item 7.

Except for other utilities identified in these 1-07.17(2) subsections with greater clearance requirements, horizontal and vertical clearances of 6 inches or more are desired between Water Mains and all other utilities. Except for gas utilities (Section 1-07.17(2)D) and for cast iron Water Main facilities (Section 1-07.17(2)A2), if a separation less than any specified clearance is unavoidable, the space between the Water Main and the other non-gas utilities shall be filled with polyethylene plastic foam material (see Section 9-05.10) before backfilling.

1-07.17(2)A2 WATER MAIN WITH SEWER, SIDE SEWER, STORM DRAIN, AND COMBINED SEWER

Where possible, Sewer and Storm Drain shall be laid at a lower invert elevation than Water Main.

See Standard Plan nos. 286a and 286b.

All Water Main shall be spaced apart horizontally from Sewer and Storm Drain a minimum of 10 feet, measured center to center, except the spacing may be reduced to the following "nearest point" measurements:

1. Five (5) feet horizontal when the Water Main is a ductile iron Water Main.
2. Less than 5 feet horizontal when the Water Main is ductile iron, and:
 - a. The Sewer is constructed of materials and with joints that are equivalent to Water Main standards, including pressure-testing requirements for a five (5) foot distance clear of Water Main.
 - b. The bottom of the Water Main is at least 18 inches above the top of the Sewer.

New Water Main crossing over Sewer and Storm Drain shall be constructed of ductile iron and shall be spaced to provide a minimum vertical separation of 18 inches between the bottom of the Water Main and the top of the Sewer and Storm Drain. In addition to the above requirements, Water Mains passing under Sewer and Storm Drain shall be protected by providing:

- 1) A minimum vertical spacing of 18 inches between the bottom of the Sewer / Storm Drain, and the top of the Water Main, and
- 2) Adequate support for the Sewer and Storm Drain to prevent excessive deflection of joints and settling on the Water Main, and
- 3) The point of crossing centered between two successive joints of the Water Main pipe.

When the Water Main is existing and new side Sewer is being installed or reconnected, the following requirements pursuant to SMC Chapter 21.16 shall apply:

- (1) Ductile or cast iron pipe shall be used for all side Sewer crossing over Water Mains, for a perpendicular distance of at least 5 feet clear from the center of the Water Main.
- (2) Side Sewer laid below Water Main shall be laid at least 6 inches below and 12 inches horizontal, from all Water Main and water-service line as measured from the "nearest points," unless ductile or cast iron pipe is used for the side Sewer to at least five (5) feet clear from the centerline of the Water Main.

1-07.17(2)A3 NEW WATER MAIN CLEARANCE WITH GAS MAIN

New Water Main to be installed crossing over or under existing gas facilities shall meet the minimum vertical clearance requirements of Section 1-07.17(2)D or Section 1-07.17(2)A whichever is greater. New Water Main installed within the specified vertical clearance of Section 1-07.17(2)D shall have a protective wrap provided and extend for the entire distance of all specified clearance.

New Water Main to be installed parallel to existing gas facilities shall be at least five (5) horizontal feet clear of the gas facility. If the minimum horizontal clearance is less than five feet but greater than three (3) feet as specified in Section 1-07.17(2)D, a protective wrap on the Water Main shall be provided.

The protective wrap shall consist of either a split PVC pipe or PVC wrapping of at least 0.04-inch thickness and shall be applied to all Water Main for a distance at least five (5) feet clear of the gas facility.

1-07.17(2)A4 CAST IRON WATER MAIN

Cast iron Water Main in Seattle's Rights of Way shall be protected as specified in Section 1-07.16(1).

Horizontal separation from cast iron Water Main shall be at least 10 feet.

The clearances stated in subsections 1-07.17(2)A1 shall also apply to all existing cast iron Water Main, water services, hydrants and hydrant connections, vaults, and chambers. Thrust blocks supporting cast iron water pipe typically located at tees, bends, and dead ends. Standard thrust block applications are shown on Standard Plan nos. 300a, 300b, 300c, 330a, 330b, 331a, 331b, 3450a and 340b.

When smaller separations or clearances are unavoidable, the use of polyethylene plastic foam will not be allowed, and the Contractor shall notify the Engineer in accordance with Section 1-07.28 item 7.

Where cast iron water distribution and transmission pipe line exits and any excavation approved by the Engineer is within the clearances specified in subsection 1-07.17(2)A2, the Contractor's protective system shall be a support system (see Section 7-17.3(1)A7b), and shield systems will not be allowed.

1-07.17(2)B CLEARANCES AMONG SEWER AND/OR STORM DRAIN

Whenever a new Sewer or Storm Drain clears an existing or new Sewer or Storm Drain by 6 inch or less, polyethylene plastic foam (see Section 9-05.10) shall be placed between the pipes as a cushion prior to backfilling.

1-07.17(2)C CLEARANCES WITH ELECTRICAL DISTRIBUTION AND TRANSMISSION SYSTEMS

Whenever a proposed excavation is within 15 feet of an underground electrical distribution or transmission facility of any kind, the Contractor shall make the notification specified in Section 1-07.28, item 6 as applicable.

See Section 1-05.2(2) for information regarding the Contractor's obligations for site safety and cooperation with SCL's Electrical Safety Observer when excavation is near an underground electrical facility.

Proposed tree planting, trimming or removal within 10 feet of overhead electrical lines less than 50Kv or within 16.5 feet of overhead power lines 50Kv or higher, requires the advance notification specified in Section 1-07.28, items 2 and 12 as applicable.

Trees proposed for planting, removal, or trimming within 10 feet of METRO trolley wire or Benson Waterfront Street Car overhead wire shall make the notification as specified in Section 1-07.28 item 2 as applicable.

Trees proposed for planting, removal, or trimming within 10 feet or more feet of varying voltage electrical transmission lines shall make the notification specified in Section 1-07.28 item 2 or 10 as applicable.

The Contractor shall not disturb the cementitious fluidized thermal backfill that surrounds underground electrical conduits and ductbanks.

1-07.17(2)D GAS MAIN CLEARANCES WITH HEAT GENERATING UTILITIES AND NON-HEAT GENERATING UTILITIES

Heat generating facilities shall include electrical distribution and transmission including grounds, steam facilities, and other heat generating sources.

Non-heat generating utilities clearance requirements :

- A. For high-pressure gas main and service lateral, and for gas transmission line:
 - 1. If a utility is parallel to the gas facility, then horizontal clearance shall be at least three (3) feet.
 - 2. If a utility crosses over or under the gas facility, then vertical clearance shall be at least three (3) feet.
- B. For non-high pressure gas main and service lateral, and for other than gas transmission line:
 - 1) If a utility is parallel to the gas facility, then horizontal clearance shall be at least one (1) foot.
 - 2) If a utility crosses over or under the gas facility, then vertical clearance shall be at least six (6) inch.

In no case, shall any utility make contact of any kind with a gas facility.

Heat generating utilities clearance requirements: For installing heat generating utilities within any gas facility clearance specified in this subsection, the Contractor shall make the notification required in Section 1-07.28, item 18, and shall come to agreement with the gas facility owner on protection to be provided before this construction begins.

The gas facility owner may require a protective split sleeve to surround the gas facility to a distance beyond specified clearances, and the Contractor shall provide such protection.

1-07.17(2)E TREE CLEARANCES

Planting of new trees shall meet the tree clearance requirements specified on Standard Plan no. 030.

1-07.17(2)F STANDARD LOCATION FOR UTILITIES – RESIDENTIAL STREET

Utilities located on residential streets shall meet the location standards and clearances specified on Standard Plan no. 030.

1-07.18 INSURANCE**1-07.18(1) COVERAGES AND LIMITS**

The insurance shall provide the minimum coverages and limits of liability set forth below. Providing coverage for these stated minimum limits of liability shall not relieve the Contractor, any Subcontractor of any tier or any of their respective insurers from liability for claims in excess of such limits. If Work is Subcontracted, applicable minimum coverages and limits of liability may be evidenced by any subcontractor provided that such insurance fully meets the applicable requirements set forth herein.

1-07.18(1)A COMMERCIAL GENERAL LIABILITY (CGL) INSURANCE

CGL insurance shall include coverage for:

- 1. Premises/Operations
- 2. Products/Completed Operations
- 3. Personal/Advertising Injury
- 4. Contractual
- 5. Independent Contractors
- 6. Stop Gap (unless insured as Employers Liability under Part B. of a Workers Compensation Insurance Policy)
- 7. Per project aggregate per ISO CG 25 03 (Aggregate Limits of Insurance per project) or Equivalent
- 8. Blasting (if explosives are used in the performance of the Work)

Such insurance must provide a minimum limit of liability of \$1,000,000 each Occurrence Combined Single Limit Bodily Injury and Property Damage (CSL) except \$1,000,000 each Offense Personal/Advertising Injury and \$1,000,000 each Accident/ Disease - Policy Limit/ Disease - each Employee Stop Gap or Employers Liability.

1-07.18(1)B AUTOMOBILE LIABILITY INSURANCE

Automobile Liability for owned, non-owned, hired, and leased vehicles, as applicable, with a minimum limit of liability of \$1,000,000 CSL. If pollutants are to be transported, MCS 90 and CA 99 48 endorsements are required.

1-07.18(1)C STATE OF WASHINGTON STATUTORY WORKERS' COMPENSATION INSURANCE

The Contractor shall comply with Workers' Compensation coverage as required by Title 51 RCW (Industrial Insurance).

1-07.18(1)D RESERVED**1-07.18(1)E RESERVED****1-07.18(1)F RESERVED****1-07.18(1)G RESERVED****1-07.18(1)H RESERVED**

1-07.18(1)I RESERVED

1-07.18(1)J RESERVED

1-07.18(1)K RESERVED

1-07.18(1)L RESERVED

1-07.18(1)M RESERVED

1-07.18(2) GENERAL REQUIREMENTS (DO NOT APPLY TO STATE OF WASHINGTON STATUTORY WORKERS' COMPENSATION INSURANCE)

The Contractor shall (1) not begin Work until certification of insurance as required in section 1-07.18(4) has been delivered to and approved by the Owner, and (2) keep required insurance in force at all times during the term of the Contract. The term "insurance" herein shall include but not be limited to self-insurance, alternative risk transfer techniques, capital market solutions or any other form of risk financing.

Each insurer must either be (1) authorized to do business in the State of Washington and maintain A.M. Best's ratings of A: VII or higher, or (2) procured as surplus lines under the provisions of chapter 48.15 RCW ("Unauthorized Insurers"), except as may otherwise be approved by the Owner.

The City of Seattle shall be included as an additional insured for primary and non-contributory basis as respects insurance coverages specified in sections 1-07.18(1)A (CGL insurance) and 1-07.18(1)B (Automobile Liability insurance). As respects CGL insurance, and Contractor's Pollution Liability Insurance (if required), such additional insured status shall (1) be evidenced by an ISO endorsement form CG 20 10 or equivalent endorsement or blanket additional insured language, (2) be primary and non-contributory as respects the Owner's insurance, and (3) contain a "cross liability" provision. ISO endorsement form CG 20 12 or equivalent endorsement or blanket additional insured language limiting additional insured status to governmental permitting shall not satisfy the requirements of this paragraph.

Written notice of cancellation must be actually delivered or mailed to the Owner not less than thirty (30) Days prior to the effective date of any cancellation except for cancellation for nonpayment of premium, which notice shall be not less than ten (10) Days prior to such date, unless a longer period of written notice is required under the provisions of Revised Code of Washington (RCW) 48.18.290 ("Cancellation by insurer."). Notice under this paragraph shall be sent by mail to the City of Seattle, Risk Management Division, P.O. Box 94669, Seattle, WA 98124, by fax to (206) 470-1270 or as an email attachment to RiskManagement@Seattle.Gov.

Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Owner may, after giving five (5) business Days notice to the Contractor to correct the breach, may immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Owner on demand, or at the sole discretion of the Owner, offset against funds due the Contractor from the Owner.

Any self-insured retention (S.I.R.) in excess of \$25,000 that is not "fronted" by an insurer must be disclosed and is subject to the Owner's approval. Upon request by the Owner, the Contractor shall (1) furnish financial information that the Owner may reasonably require to assess the Contractor's risk bearing capacity, and (2) provide a written statement that the Contractor will defend and indemnify the Owner against any claim within the Contractor's S.I.R. at least to the same extent that coverage would be afforded to the Owner under the relevant insurance policy(ies) meeting the requirements stated herein. The cost of any payments for defense and indemnity falling within the S.I.R. shall be the responsibility of the Contractor.

All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.

1-07.18(3) SUBCONTRACTOR INSURANCE

Contractor shall contractually require that each subcontractor of every tier maintain at a minimum the insurance coverages specified in sections 1-07.18(1)A (CGL insurance) and 1-07.18(1)B (Automobile Liability insurance) and include the City of Seattle as an additional insured for primary and non-contributory limits of liability. As respects CGL insurance, and Contractor's Pollution Liability Insurance (if required), such additional insured status shall (1) be evidenced by an ISO endorsement form CG 20 10 or equivalent endorsement or blanket additional insured language, (2) be primary and non-contributory as respects the Owner's insurance, and (3) contain a "cross liability" provision. ISO endorsement form CG 20 12 or equivalent endorsement or blanket additional insured language limiting additional insured status to governmental permitting shall not satisfy the requirements of this paragraph. Upon request of the Owner, the Contractor shall cause evidence of such insurance to be provided to the Owner as specified in section 1.07.18(5).

1-07.18(4) NO LIMITATION OF LIABILITY; ADDITIONAL INSURED

The limits of liability specified herein are minimum limits only. Such minimum limits of liability requirements shall not be construed to limit the liability of the Contractor, that of any Subcontractor of any tier or of any of their respective insurers. Any provision in any Contractor or Subcontractor insurance policy that limits available limits of liability to those specified in a written agreement or contract shall not apply and all insurance policies, with the exception of Professional Liability and Workers Compensation, shall include the City of Seattle as an additional insured for primary and non-contributory limits of liability for the full valid and collectible limits of liability maintained by the Contractor or Subcontractor, whether such limits are primary, excess, contingent or otherwise. This provision shall apply regardless of whether limits maintained by the Contractor are greater than those required by this Contract, and regardless of whether the certification of insurance provided by a Subcontractor of any tier pursuant to section 1-07.18(3) specifies lower minimum limits than those specified for or maintained by the Contractor.

1-07.18(5) EVIDENCE OF INSURANCE (DOES NOT APPLY TO STATE OF WASHINGTON STATUTORY WORKERS' COMPENSATION)

The Contractor shall deliver to the Owner certification of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the Work. The certification of insurance must include the following:

1. An ACORD certificate or equivalent form fully disclosing all coverages and limits of liability maintained.
2. A copy of the additional insured endorsement or blanket additional insured language to the Commercial General Liability and (if required) Pollution Liability insurance documenting that the City of Seattle is an additional insured for primary and non-contributory limits of liability and (if required) Products and Completed Operations Additional Insured; A statement of additional insured status on an ACORD or other form of certificate of insurance will not satisfy this requirement.
3. A copy of each policy's declarations page and schedule of forms and endorsements.
4. Any other policy language or endorsements that documents compliance with the requirements herein.

At any time upon the Owner's request, the Contractor shall forward to the Owner a true and certified copy of any insurance policy(s).

1-07.18(6) RESERVED

1-07.18(7) RESERVED

1-07.18(8) INDEMNIFICATION

The Contractor shall defend, indemnify and hold harmless the Owner and its officers, employees and agents from every claim, risk, loss, damage, demand, suit, judgment, attorney's fees, and expense of any kind, including but not limited to damages arising from bodily injury or death of persons and damage to or loss of use of property, arising out of or caused by the Work performed by Contractor, its agents, employees and Subcontractors upon public property including work arising under this Contract, or arising from any breach of Contractor's obligations under this Contract.

If the claim, risk, loss, damage, demand, suit, judgment, expense or action for injuries, death, or damage is caused by or results from the concurrent negligence of (a) the Contractor or its officer, agent, employee, or Subcontractor and (b) the Owner or its officer, agent or employee, these indemnity provisions shall be valid and enforceable only to the extent of the negligence or fault of Contractor and its agents, employees, and Subcontractors.

The Contractor shall also indemnify, defend, and save harmless any county, city or district and the officers and employees of said county, city or district connected with the Work within the limits of which county, city or district the Work is being performed hereunder all in the same manner and to the same extent as provided above for the protection of the Owner and the Owner's officers, employees and agents provided that no retention of money due the Contractor will be made by the Owner except as provided in RCW 60.28, pending disposition of suits or claims for damages brought against the county, city or district.

Contractor hereby assumes all risk of damage to its property, or injury to its officers, directors, agents, contractors, or invitees, in or about the project from any cause, and hereby waives all claims against the Owner. The Contractor further waives, with respect to the Owner only, its immunity under RCW Title 51, Industrial Insurance.

1-07.18(9) WORKER'S BENEFITS

The Contractor shall make all payments required for unemployment compensation under Title 50 RCW and for industrial insurance and medical aid required under Title 51 RCW. If any payment required by Title 50 or Title 51 is not made when due, including payments due from Subcontractors, the Owner may retain such payments from any money due the Contractor and pay the same into the appropriate fund.

For Work on or adjacent to water, the Contractor shall make the determination as to whether workers are to be covered under the Longshoremen's and Harbor Worker's Compensation Act administered by the U.S. Department of Labor, or the State Industrial Insurance coverage administered by the Washington State Department of Labor and Industries, or both coverages.

The Contractor shall include in the Bid, all costs for payment of unemployment compensation and for providing either or both of the insurance coverages. The Contractor will not be entitled to any additional payment for: (1) failure to include such costs, or (2) determinations made by the U.S. Department of Labor or the Washington State Department of Labor and Industries regarding the insurance coverage.

The Public Works Contract Division of the Department of Labor and Industries will provide the Contractor with applicable industrial insurance and medical aid classification and premium rates. The "Request for Release" form of the Department of Labor and Industries is also for the purpose of obtaining a release with respect to the payments of industrial insurance and medical aid premiums.

1-07.19 GRATUITIES

The Contractor shall not extend any loan, gratuity, or gift of money in any form whatsoever to any employee or officer of the Owner; nor shall the Contractor rent or purchase any equipment or Materials from any employee or officer of the Owner.

1-07.20 PATENTED DEVICES, MATERIALS, AND PROCESSES

The Contractor shall assume all costs arising from the use of patented devices, Materials, or processes used on or incorporated in the Work, and agrees to indemnify, defend, and save harmless the Owner, and its duly authorized agents and employees from all actions of any nature for, or on account of the use of any patented devices, Materials, or processes.

1-07.21 ROCK DRILLING SAFETY REQUIREMENTS

It shall be the Contractor's responsibility to maintain safe working conditions during rock drilling, by keeping dust concentration below the threshold limit value or by providing those protective devices that may be required by the State Department of Labor and Industries, or both.

1-07.22 USE OF EXPLOSIVES

Explosives shall not be used without written authority of the Engineer; and then only under such restrictions as may be required by the proper authorities. When the use of explosives is necessary, the Contractor's insurance shall contain a special clause covering the blasting. Explosives shall be handled, marked, stored, and used in strict compliance with Chapter 296-52 WAC and such local laws, rules, and regulations as may apply. The stricter provisions shall apply. For Work within The City of Seattle, the Seattle Fire Code, Article 77, shall also apply and the individual in charge of blasting shall be certified by the Seattle Fire Department. In all cases, the individual in charge of blasting shall have a current Washington State Blaster Users License.

The Contractor shall obtain, comply with, and pay for such permits and costs as may be necessary in conjunction with blasting operations. Copies of the permits shall be furnished to the Engineer. For Work within the city limits of Seattle, a permit shall be obtained from the Seattle Fire Department.

The Contractor shall use the utmost care not to endanger life or property, cause slides, or disturb the materials outside the neat lines of the cross section. Blasting near proposed Structures shall be completed before construction on such Structures is undertaken. Explosives shall not be left unprotected along or adjacent to any existing public place.

The Contractor shall provide advance written notice of the location, date, time and approximate duration of blasting to public and private utilities having facilities near the blast site and any other property owner in the vicinity who may be affected by blasting operations. Notification shall be sufficiently in advance that affected entities can take steps to protect their property from damage.

1-07.23 PUBLIC CONVENIENCE AND SAFETY**1-07.23(1) CONSTRUCTION UNDER TRAFFIC**

The Contractor shall make the applicable notification(s) of Section 1-07.28 as may apply, and shall:

1. Conduct all operations with the least possible obstruction and inconvenience to the public.
2. Have under construction no greater length or amount of Work than can be continuously and vigorously prosecuted properly with due regards to the rights of the public.
3. To the extent possible, finish each section before beginning Work on the next.
4. Minimize the disruption of public traffic by:
 - a. Permitting traffic to pass through the Work with the least possible inconvenience or delay except in those areas where safety and lack of space requires detouring the traffic elsewhere.
 - b. Maintaining existing roads, streets, sidewalks, bikeways, and paths that lie next to or inside the Project Site limits by keeping them open and in good, clean, and safe condition at all times. Deficiencies caused by the Contractor's operation shall be repaired at the Contractor's expense. Deficiencies not caused by the Contractor's operations will be repaired by Owner forces at the Owner's expense. The Contractor shall also maintain roads, streets, sidewalks, bikeways, and paths adjacent to the Project Site when they are affected by the Contractor's operations. Removing or repairing any condition resulting from the Work or Contractor's operations that might impede traffic or create a hazard including the removal of deposits and debris that accumulates on the roadway surface (see Section 1-04.11).

If the Contractor fails or refuses to clean the streets, trucks, or equipment as required by the Engineer, the Engineer may order the Work suspended at the Contractor's risk until compliance with the Contractor's obligation is assured. Alternately, the Engineer may order the streets in question cleaned by others and such costs incurred by the Owner in achieving compliance with these Contract requirements, including cleaning of the streets, shall be deducted from moneys due or to become due the Contractor on progress estimates. The Contractor shall have no claim for delay or additional costs if the Engineer chooses to suspend the Contractor's Work until compliance is achieved.

 - d. Maintaining existing, permanent signs and not relocating or removing traffic control and street name signs that interfere with construction until absolutely necessary; and installing and maintaining temporary pavement markings and striping on the roadway using temporary pressure sensitive tape when necessary. The Contractor shall be responsible for scheduling when to renew striping and pavement marking, subject to the Engineer's approval.
 - e. Providing access at all times to emergency traffic such as police, fire, and disaster units.
 - f. Coordinating construction operations with all disposal firms and transit bus service that may be operating within the Project Site. If METROKC operates in the area of Work, the Contractor shall maintain the Project Site in such a manner that transit bus service, including access to bus zones, is safe and convenient. Whenever it is necessary to modify METROKC Transit Bus or Trolley Service (such as closure or temporary relocation of a bus stop or on-street bus staging area, removal of a bus shelter, closure of or detour of a bus route, construction in a roadway where bus transit is granted access and transit should be made aware of, or requesting a temporary weekend-only diesel bus for an electric trolley), the Contractor shall make the notification in accordance with Section 1-07.28, item 2.

- g. The Contractor shall be liable for any damage to property or persons, resulting from failure to comply with Subsection 1-07(23)(4)(f).
- h. Keeping existing traffic signal and lighting systems in operation as the Work proceeds. (The Owner will continue the routine maintenance on such systems.)
- 5. Protect the rights of abutting property owners by:
 - a. Planning and conducting construction operations so that the least inconvenience possible is caused to abutting property owners;
 - b. Make the required notification(s) when it is impractical to carry on the construction and maintain traffic simultaneously, or maintain ready and convenient pedestrian and vehicular access to driveways, houses, and buildings along the line of Work;
 - c. The Contractor shall post signs and barricades advising street closure at the nearest intersections away from the closed portion of the street and on all cross-streets. Street closings shall not exceed 2 blocks in length at any one time unless approved otherwise by the Engineer;
 - d. Make the required notification(s) when street closure is required in the preparation of the roadway for placement of asphalt pavement, concrete pavement, sewer excavation, or other construction that prohibits safe vehicular traffic notifying abutting property owners and tenants of any restrictions that might affect access to their property;
 - e. Providing temporary approaches to crossing or intersecting roads and keeping those approaches in good condition; and
 - f. Providing another access before closing an existing one whenever the Contract calls for removing and replacing an abutting owner's access. The existing access shall not be closed until the replacement access facility is available; and
- 6. When traffic must pass through grading areas, the Contractor shall:
 - a. Make cuts and fills that provide a smooth, even roadbed;
 - b. Place, in advance of other grading Work, enough fill at all Culverts and bridges to permit traffic to cross;
 - c. Make roadway cuts and fills, if ordered by the Engineer, in partial-width lifts, alternating lifts from side to side to permit traffic to pass on the side opposite the Work;
 - d. Install Culverts on half the width of the traveled way, keeping the other half open to traffic and unobstructed until the first half is ready for use;
- 7. After rough grading or placing any subsequent layers:
 - a. Prepare the final roadbed to a smooth, even surface (free of humps and dips) suitable for use by public traffic; and
 - b. Settle dust with water, or other dust palliative, as the Engineer may order.
- 8. If grading Work is on or next to a roadway in use, the Contractor shall finish the grade immediately after rough grading and place surfacing Materials as the Work proceeds.
- 9. Conduct all operations to minimize any drop-offs ("drop-off" is defined as abrupt changes in roadway elevation) left exposed to traffic during non-working hours. Unless otherwise directed in the traffic control plan, the Contractor shall also protect drop-offs left exposed to traffic during non-working hours as follows:
 - a. Drop-offs up to 0.20 foot may remain exposed with appropriate warning signs alerting motorists of the condition.
 - b. Drop-offs more than 0.20 foot that are in the traveled way will not be allowed unless motorists are informed about the danger of a drop-off immediately ahead of them with appropriate warning signs and protection is provided as indicated in the immediately following subparagraphs c(1) or c(2).
 - c. Drop-offs with depths more than 0.20 foot, but no more than 0.50 foot, that are not within the traveled way will not be allowed unless motorists are informed about the danger of a drop-off immediately ahead of them with appropriate warning signs and further protected by having one of the following:
 - (1) Channeling devices (Type I barricades, plastic safety drums, or other devices 36 inches or more in height) placed along the traffic side of the drop-off and a new edge of pavement stripes placed a minimum of 3 feet from the drop-off on the traffic side. The "number" in feet of maximum spacing between the devices shall be the posted speed "number" in miles per hour. Signs, warning of pavement drop-off, shall be placed in advance of and throughout the drop-off treatment.
 - (2) Temporary concrete barrier or other approved barrier installed on the traffic side of the drop-off with 1 foot between the drop-off and the drop-off side of the barrier, and a new edge of pavement stripe a minimum of 2 feet from the face of the traffic side of the barrier. An approved terminal, flare, or impact attenuator will be required at the beginning of the barrier facing oncoming traffic. For night use, the barrier shall have standard delineation such as paint, reflective tape, lane markers, or warning lights.
 - d. Drop-offs more than 0.50 foot not within the Traveled Way shall be marked with appropriate warning signs and further protected as indicated in the immediately preceding subparagraphs c(1) or c(2) if all of the following conditions are met
 - (1) The drop-off is less than 2 feet;
 - (2) The total length throughout the project is less than 1 mile;
 - (3) The drop-off does not remain for more than three (3) Working Days;
 - (4) The drop-off is not present on any of the Holidays listed in Section 1-01.3; and
 - (5) The drop-off is only on one side of the roadway.

- e. Drop-offs more than 0.50 foot that are not within the Traveled Way and are not otherwise covered by the immediately preceding subparagraph d above shall be both protected with appropriate warning signs and with protections as specified in item c(2) this subsection.
- 10. Open trenches within the traveled way shall have a steel plate cover placed and anchored over them. A wedge of suitable material, if required, shall be placed for a smooth transition between the existing surface and the steel plate. Warning signs shall be used to alert motorists of the presence of the steel plates.
- 11. Castings that are exposed and are not in the plane of adjacent surface due to construction involving the surrounding surface, shall have temporary transition tapers on all sides of the exposed casting consisting of temporary pavement patch material or other suitable material to prevent nuisance to traffic.

Whatever other specific Work the Contract indicates is to be furnished or performed by the Owner or Engineer.

1-07.23(2) PEDESTRIAN CONTROL AND PROTECTION

When the Work area encroaches upon a sidewalk, walkway or crosswalk area, special consideration must be given to pedestrian safety. Maximum effort must be made to separate pedestrians from the Work area.

Protective barricades, fencing, and bridges, together with warning and guidance devices and signs, shall be utilized so that the passageway for pedestrians is safe and well defined. Whenever pedestrian walkways are provided across excavations, they shall be provided with suitable handrails. Footbridges shall be safe, strong, free of bounce and sway, have a slip resistant coating, and be free of cracks, holes, and irregularities that could cause tripping. Ramps shall be provided at the entrance and exit of all raised footbridges, again to prevent tripping. Adequate illumination and reflectorization shall be provided during hours of darkness. All walkways shall be maintained at least 4 feet clear width except in areas of unusually heavy pedestrian traffic such as business districts, where the minimum clear width shall be 8 feet.

Where walks are closed by construction, an alternate walkway shall be provided, preferably within the planting strip. Where it is necessary to divert pedestrians into the roadway, barricading or channeling devices shall be provided to separate the pedestrian walkway from the adjacent vehicular traffic lane. At no time shall pedestrians be diverted into a portion of a street used concurrently by moving vehicular traffic.

At locations where adjacent alternate walkways cannot be provided, appropriate signs shall be posted at the limits of construction and in advance of the closure at the nearest crosswalk or intersection to divert pedestrians across the street.

Physical barricades shall be installed to prevent visually impaired people from inadvertently entering a closed area. Pedestrian walkways shall be wheelchair accessible at all times. Pedestrian access shall be maintained to all properties adjacent to the construction site.

1-07.24 REAL PROPERTY RIGHTS

Restrictions to access such as Right of Way margins, parcel boundaries, limits of easements and other Real Property rights, and limits of construction permits obtained by the Engineer, will be indicated in the Contract, but may not always be shown on the Drawings. The Contractor's construction activities shall not be allowed beyond these restrictions to access. An exception may be allowed if such exception is the use of private property, and such use of private property is not in violation of a condition in the Contract, arrangements for such use of private property are made prior to commencement of construction, and the Engineer is informed of such arrangement prior to use of said property.

Generally, the Engineer will have obtained, prior to Bid opening, all Real Property rights (both permanent and temporary) necessary for carrying out the Work. Exceptions to this will be noted in the Contract or brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the Work is accomplished on or through property other than public street Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any Real Property agreement obtained by the Engineer from the owner of the private property. Copies of the Real Property rights documents will be included in the Project Manual or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

The Drawings will include notes whenever necessary Real Property rights have not been acquired prior to the Advertisement for Bids. The Contractor shall not proceed with any portion of the Work on private property where Real Property rights have not been secured. If the Contractor is delayed due to acts of omission on the part of the Engineer in obtaining Real Property rights, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of Contract.

Each property owner shall be notified in advance of the Contractor's entry onto that owner's property pursuant to Section 1-07.28. This includes entry onto private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Owner, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of Materials, or other Contractor needs. Before using any private property, whether adjoining the Work or not, the Contractor shall file with the Engineer a written statement granting permission by the property owner for such property use. Upon vacating the private property, the Contractor shall file with the Engineer a written release from the property owner. Each property disturbed or otherwise interfered with by the Contractor for reasons of construction pursued under this Contract shall require a written permission and written release. The written permission and written release shall be signed by the private property owner, or proper authority acting for the owner of the property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property including cleanup as required in Section 1-04.11 has been satisfactorily accomplished. The written permission and written release shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Physical Completion Date can be established (see Section 1-05.11(2)).

1-07.25 OPENING OF SECTIONS TO TRAFFIC

The Owner reserves the right to use and open any portion of the Work before the Physical Completion Date. This action will not cause the Owner to incur any liability to the Contractor except as may otherwise be provided in the Contract.

If the Engineer opens any portion of the Work prior to the Physical Completion Date because early opening is specified in the Contract, or the Contractor has failed to prosecute the Work continuously and efficiently, then any Work remaining after that portion of the project is open to traffic shall be performed at Bid item prices for Bid items of Work involved. No additional compensation will be made for costs incurred by the Contractor because of:

1. Inconvenience, additional length of travel to conform to established traffic patterns, or planned access features.
2. Compliance with statutes governing traffic regulations and limitations of loads.
3. Additional flagging costs necessary to protect the Work and the traveling public.

1-07.26 NO WAIVER OF OWNER'S LEGAL RIGHTS; ASSIGNMENT OF CLAIMS FOR DAMAGES FOR ANTI-TRUST LAW VIOLATIONS

The Owner shall not be precluded or estopped by any measurement, estimate, certificate or payment made, whether before or after the Completion Date, from showing the true amount and character of the Work performed and Materials furnished by the Contractor, or from showing that any such measurement, estimate, payment or certificate is untrue or incorrectly made, or that the Work or Materials do not conform in fact to the Contract. The Owner shall not be precluded or estopped notwithstanding any such measurement, estimate or certificate and payment from recovering from the Contractor and the Contractor's Sureties such damages as the Owner may have sustained by reason of the Contractor's or Sureties' failure to comply with the terms of the Contract and bond. Neither the establishment of the Completion Date by the Owner, nor any payment for the whole or any part of the Work, nor any extension of time, nor any possession taken by the Owner shall operate as a waiver of any portion of the Work, or of any power herein reserved to the Owner, or any right to damages herein or otherwise provided or bar recovery by the Owner of any money wrongfully or erroneously paid to the Contractor. A waiver by the Owner of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor and the Owner recognize that the impact of any overcharge to the Owner by the Contractor resulting from an anti-trust law violation by any Materialperson or Subcontractor of the Owner adversely affects the Owner rather than the Contractor. Therefore the Contractor assigns to the Owner any and all claims for such overcharges.

1-07.27 RESERVED**1-07.28 NOTIFICATIONS RELATIVE TO CONTRACTOR'S ACTIVITIES**

The Contractor shall plan and schedule Contractor Work activities to conform to and allow time for notifications, approvals, reviews, and other conditions of the Contract.

The Engineer will initially notify public and private entities having facilities in the street Right of Way of:

1. The approximate time the Work will begin.
2. What the project scope of Work is.
3. Utilities in the street Right of Way that require relocation.
4. Any other particular problems the Engineer anticipates may occur.

Thereafter the Contractor shall make the following notifications regarding Work performed in City Right Of Way, as applicable. Notification shall give the time of commencement and completion of the Work, Work hours, location of the Work, names of streets affected by the Work, schedule of operation, routes of detours, closures, etc.

1. **For Work on Roads and Highways outside the Seattle City limits:** Notifications shall be provided in accordance with permit and other requirements of the agency having jurisdiction over those roads and highways. The Contractor shall become familiar with those requirements prior to starting Work.
 - A. Outside Seattle City Limits: For Work on roads and highways outside the Seattle City limits but within King County, notifications shall be made as indicated below, as otherwise indicated in the permit, or by the requirements of the agency having jurisdiction over those roads and highways. Construction permits in the King County Right of Way may be obtained by calling 206-296-7456. In unincorporated areas of King County, the following shall be notified at least two (2) Working Days in advance:
 - (1) King County Roads Division (206-296-8100),
 - (2) King County Fire Marshall's Office (206-296-6675), and
 - (3) King County Police (1-800-344-4080 or 206-296-3311).
2. **For Work That Partially or Completely Restricts Any Seattle Arterial, Street, Sidewalk, or Alley:** After receiving approval of the traffic control plan (see Section 1-10.2(5)), the Contractor shall provide SDOT (206-684-7623 Monday to Friday 8:00 am to 5:00 PM) with at least 24-hours advance notifications before the start of Work within the street Right of Way and immediately after the Work is complete. This notification requirement includes partial or full lane closures, parking restrictions, sidewalk closures, detours, complete or partial street closures, shoulder work, and pedestrian rerouting, as well as the placing of building Materials or equipment on city streets, sidewalks, or alleys.
 - A. Partial closure of any street: In addition to notifying SDOT, provide 24-hours advance notification to the following:
 - (1) Within Seattle City Limits:
 - (a) Seattle Fire Department (206-386-1494).

- (b) Seattle Police Department, Parking Enforcement, and Traffic Section of the Seattle Police Department (206-684-5101 FAX - written notification only).
 - (2) Both within and outside the boundaries of Seattle City Limits: The Contractor shall notify the agencies set forth in both preceding items 1 and 2A(1).
 - B. Complete closure of any arterial within the Seattle City Limits: Provide 72-hours advance notice to SDOT (206-684-7623 Monday to Friday 8:00 am to 5:00 PM) and the applicable agencies listed under paragraph 1.A.(1) above.
 - C. Complete closure of any local-access street, alley, or sidewalk within the Seattle City Limits: Provide 24-hours advance notice to SDOT (206-684-7623 Monday to Friday 8:00 am to 5:00 PM).
 - D. To Restrict Parking on any street within the Seattle City Limits: Provide 48-hours advance notification to SDOT (206-684-7623 Monday to Friday 8:00 am to 5:00 PM). To arrange for inspection of "No Parking" (T-39) easels and other parking related signs by a parking enforcement officer or uniformed peace officer, contact 206-386-9012 after placing the easels and at least 24 hours in advance of the effective date of enforcement on the easels. (see Section 1-10.2(5)C, item 3).
3. **Signage, Parking Pay Stations, Parking Meters, Salvaging Decorative Pavement Material:**
- A. Parking Meters, Parking Pay Stations, and sidewalk containing D-22 signage ("Pay R", "Pay L", "Pay H", and "Pay RL" signs and posts) and "numbered" base plates: five (5) Working Days advance notice is required for the following:
 - 1) To request covering of parking meter(s) and placing no parking markers on "numbered" base plates where parking pay stations exist, contact 206-684-5086 (see Section 1-10.2(5), item 3.).
 - 2) To request removal of parking meter(s), parking pay station(s), and sidewalk containing D-22 signage and "numbered" base plate, contact 206-684-5370. Also see Section 2-02.3(3)F.
 - 3) After completion and acceptance of newly constructed sidewalk, to request installation of parking pay station, D-22 signage, and "numbered" base plates, contact 206-684-5370.
 - B. Traffic Signs and Street Designation Signs: See Section 8-21.3(1)B1.
 - C. Salvaging Brick, Cobblestone, and Granite Curb: See Section 2-02.3(7)E.
4. **Disruptions to, or service modification requests for METROKC transit and Benson Line Waterfront Streetcar service and facilities:**
- A. Contact 206-684-2732 or "construction.coord@kingcounty.gov" for the following:
 - 1) Short term closure or temporary relocation of a bus stop requires a minimum five (5) Working Days advance notice;
 - 2) Removal of bus shelter at bus stop requires a minimum fifteen (15) Working Days advance notice;
 - 3) The request for assignment of diesel coaches for electric coaches on electric trolley routes (weekend only – no weekday diesel coach substitution) shall be made by no later than 10:00 AM on the Tuesday prior to the weekend requested.
 - 4) Bus route road closure resulting in traffic detour requires a minimum seven (7) Working Days advance notice. If transit is to be granted access during this closure, this notification is still required.
 - B. Contact 206-263-6580 for overhead power wire requests as follows:
 - 1) Overhead power line modification or outage requests for the electric bus require a minimum ten (10) Working Days advance notice. See item 3) immediately following.
 - 2) Any construction or equipment operating within ten (10) feet of any electric bus overhead power line requires a ten (10) Working Day advance notice.
 - 3) Requests for overhead power line modification or outage may have an associated cost payable by the requesting party and such requests may require additional information be provided. Scheduling is dependent upon King County METROKC Transit Power Distribution's ability to accommodate such requests. The Contractor shall be prepared to accommodate such scheduling in the Work as required in Section 1-08.3(1).
5. **Property access restrictions:** Provide abutting property owners and tenants of impending access restrictions. Advance notification shall be 24-hours for residential property and 48-hours for commercial property.
6. **Emergency Work for Pavement or Sidewalk Problems:** Provide immediate notification to: During the Day notify SDOT (206-684-7623 Monday to Friday 8:00 AM to 5:00 PM, all other times 206-386-1218).
7. **Water Mains, Hydrants, Water Services, and Related Appurtenances**
- A. **Shutdowns and Obstructions:** For all shutdowns involving facilities owned by Seattle Public Utilities, for any Work involving water service and/or water service connections, and for any hydrant access restrictions, the Contractor shall coordinate scheduling and notification with the Seattle Public Utilities Water Operations Division via the Engineer. The same applies to Work that will obstruct normal access to any fire hydrant or water utility valve. The Contractor shall not operate, and shall not restrict access to, any water valve owned by the Seattle Public Utilities. Notifications shall be as follows:
 - 1) **Within SPU Water Service Franchise Area:** Seattle Public Utilities Water Operations (206-386-1800). Water Main shutdown notifications and advisories regarding fire hydrant status will be given to fire agencies by SPU Water Operations. At least five (5) Working Days advance notice before any request to shutdown or otherwise interrupt water service or, restrict access to hydrants and valves is required. Where Water Main shutdowns are requested in commercial and industrial areas, additional advance notification is required on a project specific basis. All Work impacting water service or water service connection shall require a minimum three (3) Working Days advance

notice to the Engineer for advisories and coordination with Water Operations. Pavement construction impacting castings and Structures connected to the water distribution or water transmission system requires five (5) Working Days advance notice to the Engineer for Water Operations advisories.

- 2) **Outside SPU Water Service Franchise Area:** Seattle-King County Department of Public Health (206-296-4722). At least 24 hours advance notice is required.
 - 3) **Boundaries of SPU Water Service Franchise Area:** The Contractor shall notify the agencies set forth in paragraphs 1) and 2) above.
- B. **Application for New and Temporary Water Service:** Contact SPU Customer Service at 206-684-5800.
- C. **Water Mains and Clearance with other Utilities:**
- 1) When proposed underground utilities are within the clearance limits of water pipe other than cast iron (Section 1-07.17(2)A), any required Contractor notification will be addressed in the Contract.
 - 2) When excavation is proposed near a cast iron water pipe (Section 1-07.17(2)A2), Contractor required notification will be addressed at the pre-construction conference (Section 1-08.1(2)).
- D. **Backflow Prevention Assembly (BPA) Inspection:** When a backflow prevention assembly is required in any temporary or permanent connection with a Water Main, the Contractor shall request inspection by making the following notification at least two (2) Working Days in advance of making the connection to the Water Main (see Sections 2-07.3(1), 8-03.3(1), 8-03.3(8), and 9-30.16):
- 1) Denny Way and north – 206-233-2635, or
 - 2) South of Denny Way – 206-684-3456.
- E. **Hydrant permit for temporary withdrawal of water:** See Section 2-07.3(2).
8. **Electrical Safety and Service:**
- A. **Electrical Safety Observer:** To schedule an Electrical Safety Observer, notify Seattle City Light at least seven (7) Working Days in advance of the need to enter a Seattle City Light vault, or to work on or within any other Seattle City Light electrical Structure or facility, or to work on or near any Seattle City Light electrical transmission or distribution system (206-684-4911). See Section 1-05.2(2).
- B. **Electrical Service Connection and Inspection:** To schedule an electrical service connection or inspection other than street lighting and signals (see Section 8-30.1(1)) and other than irrigation (see Section 8-03.3(1), contact 206-684-3000 at least thirty (30) Days in advance.
- C. **Excavation at or near Underground Electrical Distribution and Transmission System:** When proposed excavation is within the vicinity of underground electrical distribution and transmission facilities per Section 1-07.17(2)C, the Contractor shall notify Seattle City Light at least ten (10) Working Days in advance of the excavation as follows:
- | | |
|----------------------------|-----------------|
| At and North of Denny Way: | (206) 615-0600. |
| South of Denny Way: | (206) 386-4200. |
- D. **Power Lines and Trees;** See items 2B and 12 this Section.
- E. **Replacement of Casting and Covers,** 1. For Seattle City Light (SCL) replacement of casting and covers, notification of adjustment shall be directed to SCL utility castings electrical reviewer at phone number (206) 684-4911 at least seven (7) Working Days in advance of the scheduled work. 2. For Puget Sound Energy (PSE) replacement casting and covers, notification of adjustment shall be directed to PSE utility castings at phone number (360) 394-6635 at least five (5) Working Days in advance of the scheduled work.
9. **Sanitary Sewer Spills:** In the event of a sanitary Sewer spill immediately notify:
- A. Seattle-King County Department of Public Health (206-296-4632).
 - B. METROK (206-263-3801).
10. **Chemical, Oil, Hazardous Substance, or other Contaminant Spill or Discharge or Release:** Whenever the Contractor first becomes aware of a chemical, oil, hazardous substance, or other contaminant or environmental spill or discharge or release, immediately notify:
- A. Engineer, and
 - B. If into Lake Union, Ship Canal, or Puget Sound:
 - a U.S. Coast Guard (206) 217-6232) or the National Response Center, Washington, D.C. 1-800-424-8802 (operated 24 hours a Day), **and**
 - b Washington State Department of Ecology (425) 649-7000) **and**
 - c Seattle Harbor Patrol (206) 684-4071.
 - C. If into any sanitary Sewer or combined Sewer:
 - a King County Industrial Waste (206) 263-3000) Monday to Friday 8:00 to 5:00 AM,
 - b West Point Treatment Plant (206) 263-3801 all other times.
 - D. If into Storm Drain, sanitary Sewer, combined Sewer, side Sewer, rivers, streams, lakes other than Lake Union:
 - a Washington State Department of Ecology (425) 649-7000, **and**
 - b Seattle Public Utilities (206) 386-1800, **and**
 - c Seattle Surface Water Quality Hotline (206) 684-7587.
 - E. For flammable or hazardous materials: - Seattle Fire Department 911.
11. **Seattle Monorail:** When Work is within 10 feet of any portion of the monorail Structure above ground, or is within 20 feet of any portion of the monorail Structure below ground, the Contractor shall contact Seattle Monorail at 206-448-2259 at least ten (10) Working Days in advance of construction.

12. **Overhead Electrical Power Lines and Trees:** When tree trimming or tree removal is within 10 feet of overhead power lines less than 50Kv or within 16.5 feet of overhead power lines 50Kv or higher, contact Seattle City Light at least seven (7) Working Days in advance at 206-386-1663. See Sections 1-07.16(2) and 1-07.17(2)D.
13. **Underground Utility Locator:** The Contractor shall call the Utilities Underground Location Center 1-800-424-5555 not less than two (2) or more than ten (10) Working Days before the scheduled date for commencement of any excavation that might affect underground facilities. Alternate notification time periods limits may be substituted if mutually agreed to, in writing, by the Contractor and utility involved. If a utility is known to have, or suspected of having, underground facilities within the area of any proposed excavation, and that utility is not a subscriber to the Underground Utilities Location Center, notice by the Contractor shall be provided individually to the utility. See Section 1-07.17(1).
14. **Entry onto Private Property:** Each property owner shall be given 48 hours advance written notice prior to entry by the Contractor (see Section 1-07.24).
15. **U.S. Postal Service Collection Boxes, Mail Receptacles, and other Structures:** U.S. Postal Service collection box and other Structures requiring temporary relocation to accommodate construction, the Contractor shall contact 206-768-4368 at least five (5) Working Days in advance for coordination. Only the U.S. Post Office will move postal property (see Section 1-07.16(3)).
16. **Signalized Intersections, Traffic Signals, and Loop Detection Systems:** Where pedestrian and/or vehicular signals, or a loop detector system, or a signalized intersection are impacted, or will be impacted by construction (see Sections 1-07.17(1) and 8-31.1(1)), the Contractor shall provide at least ten (10) Working Days advance notice to 206-386-1206 for coordinating temporary signal wire disconnect and temporary signal timing requirements.
17. **Survey Monumentation:**
 - A. When proposed construction or other activity requires removal or destruction of a monument, the Contractor shall provide a minimum four (4) Working Days advance notice to the Engineer to allow SPU survey crews to provide witness monuments before such construction or activity. Contact 206-684-5073 or 206-684-4674 (see Section 1-07.16(1)).
 - B. When survey monument cases are installed and monumentation is ready for installation, the Contractor shall contact 206-684-5073 or 206-684-4674 at least three (3) Working Days in advance.
18. **Gas Main, Transmission line, and Service Lateral:** At least three (3) Working Days both before removals over underground gas facilities and before excavation or new facility construction, are within the clearances of gas infrastructure as specified in Section 1-07.17(2)E, the Contractor shall contact 1-888-Call-PSE (1-888-225-5773).

1-07.29 RESERVED

1-07.30 RESERVED

SECTION 1-08 PROSECUTION AND PROGRESS

1-08.1 PRELIMINARY MATTERS

1-08.1(1) COPIES OF CONTRACT

The Engineer will issue to the Contractor, without charge, the following number of Contract sets:

- | | |
|---|---------|
| 1. Full-size Drawings (22-inch x 34-inch) | 2 Sets |
| 2. Reduced Drawings (11-inch x 17-inch) | 10 Sets |
| 3. Project Manual | 10 Sets |

The Contractor may purchase from the Engineer additional copies of Drawings and Project Manuals by submitting a request in writing to the Engineer stating the type and number of each document. The Contractor will be charged reproduction and binding costs for each document requested based upon the following:

- | | |
|--------------------|--------------------------------------|
| 1. Project Manuals | \$0.05 per page |
| 2. Drawings | Current rate (per square foot basis) |

These charges will be deducted from the money due or to become due the Contractor on progress estimates.

The Contractor may also purchase Drawings directly from the:

Records Vault Counter
Seattle Public Utilities
Seattle Municipal Tower, Suite 4700
700 Fifth Avenue
Seattle, WA. 98104-1709

Payment shall be made by cash or check only. Checks shall be made payable to The City of Seattle.

1-08.1(2) PRECONSTRUCTION CONFERENCE

After the Contract has been executed, but before the Contractor begins Work, a preconstruction conference will be held for the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the preliminary critical path schedule indicating major work activities including the order and duration of work activities, milestones and time frames required in the Contract, the critical path, and as required by the Engineer;
2. To establish a working understanding among the various parties affected by the Work;

3. To establish and review procedures for progress estimates and cut-off dates, notifications, approvals, reviews, submittals, etc.;
4. To establish normal working hours for the Work;
5. To review safety standards, traffic control, and maintaining cleanliness;
6. To review temporary water pollution/erosion control plans and related permits, as applicable;
7. To review Material sources as may be applicable; and
8. To discuss such other related items as may be pertinent to the Work.

The Contractor shall prepare and submit the following at the preconstruction conference:

- a. A breakdown of all lump sum Bid items;
- b. A list of all portions of the Work to be subcontracted and the name of the proposed Subcontractors;
- c. A preliminary schedule of submittals (Section 1-05.3);
- d. A list of waste, recycle, and disposal sites, as applicable (see Section 1-07.3);
- e. Preliminary critical path schedule and three week forward / one week back look ahead schedule (Section 1-08.3); and
- f. A preliminary plan for temporary erosion and sediment control, and identification of the On-Site Erosion Control Lead (see Sections 1-05.13(3), 1-07.15, 8-01).

1-08.1(3) SUBCONTRACTING

Work done by the Contractor's own organization shall account for at least 30 percent of the Awarded Contract Price. The Contractor may subtract (from the Awarded Contract Price) the cost of any subcontracted Work the Contract specifically designates may be first excluded from the Awarded Contract Price before computing this percentage.

Work shall not be subcontracted, regardless of tier, without written consent of the Engineer. A request to subcontract shall be made on the "Subcontractor Approval Application Form" provided by the Engineer. If the Engineer requests, the Contractor shall provide proof that the Subcontractor has the experience, ability, and equipment the Work requires. Each subcontract shall contain a provision that requires the Subcontractor to comply with Chapter 39.12 RCW and furnish to the Contractor all certificates, statements, and submittals that the Contractor is required by the Contract to furnish to the Owner.

Along with the request to subcontract, the Contractor shall submit the names of any contracting firms a Subcontractor proposes to use (i.e. second- and lower -tier Subcontractors). Collectively, these second and lower tier Subcontractors shall not do an amount of work that exceeds 25 percent of the total amount subcontracted to the first-tier Subcontractor. When a Subcontractor is responsible for construction of a specific Structure or Structures, the following Work may be performed by second- and lower-tier Subcontractors without being subject to the 25 percent limitation:

1. Furnishing and driving of piling; and
2. Furnishing and installing concrete reinforcing and post-tensioning steel.

Except for the 25 percent limit, second- and lower-tier Subcontractors shall meet the same requirements as first-tier Subcontractors.

Consent to subcontract will not be given unless the Engineer is satisfied with the proposed Subcontractor's prior performance, equipment, experience, and ability to perform the Work. Approval to subcontract shall not:

- 1) Relieve the Contractor of any responsibility to carry out the Contract;
- 2) Relieve the Contractor of any obligation or liability under the Contract and the Contractor's bond;
- 3) Create any Contract between the Owner and the Subcontractor; or
- 4) Convey to the Subcontractor any right against the Owner.

The Owner will not consider as subcontracting:

- (1) The purchase of sand, gravel, crushed stone, crushed slag, batch concrete aggregates, ready mixed concrete, off-site fabricated structural steel, other off-site fabricated items, and any other materials supplied by established and recognized commercial plants;
- (2) Delivery of any of the materials identified in item 1 immediately above to the Project Site in any vehicle owned or operated by the Materialperson of such material or by a recognized independent or commercial hauling company. Such purchase shall be considered as being purchased from Materialpersons.

The Washington State Department of Labor and Industries may determine that Chapter 39.12 RCW applies to the employees of any Materialperson identified in items (1) or (2) immediately above in accordance with Chapter 296-127 WAC. If this should occur, the provisions of Section 1-07.9, as modified or supplemented, shall apply.

When a portion of the Work that has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the Engineer, the Subcontractor shall be removed and replaced immediately upon the Engineer's written order, and shall not again be employed on the Work unless the Contractor makes protest and the Contractor's protest is upheld by the Owner.

If the Engineer determines that any Subcontractor is performing any services in an unsatisfactory manner or is not completing the Work in accordance with the requirements of the Contract or is otherwise undesirable or unacceptable, the Engineer will so advise the Contractor by written notice. The Contractor shall then take immediate steps to terminate such Subcontractor. Further subcontracting by Subcontractors will be subject to the same Owner's rights and Subcontractors' obligations. The Contractor and each of its Subcontractors shall ensure that such Owner's right is included in each subcontract and sub-subcontract for any portion of the Work.

The Contractor's cost records pertaining to any Subcontracting of this Contract shall be open to inspection, subject to retainage periods, and the other requirements of Section 1-09.12.

By no later than 30 Days after the Physical Completion Date, the Contractor shall submit to the Owner a completed Final Contract Payments Reporting Form, listing the name of and dollar amount paid to each Subcontractor and Materialperson utilized by the Contractor providing more than \$2,500 worth of goods and/or services on the project, as well as the dollar amount paid to the Contractor. A sample of the form is included in the Sample Forms section of the Project Manual. The Owner will not establish the Completion Date until the completed Final Contract Payments Reporting Form has been received.

1-08.1(4) HOURS OF WORK

Except in case of emergency or unless otherwise approved by the Engineer, the normal hours of Work shall be between 6:00 a.m. and 7:00 p.m. on any Working Day and shall consist of 8 hours, exclusive of a lunch period of not more than one hour. The normal hours of Work shall be established at the preconstruction conference or prior to the Contractor commencing the Work and shall not be changed or extended without approval of the Engineer.

Permission to work other than the normal hours and Working Days may be given subject to certain conditions set forth by the Owner in its sole discretion.

SMC Chapter 25.08 specifies maximum permissible sound levels for sound sources located within the Seattle City Limits or King County. Permission to work outside normal hours of Work may be withdrawn at any time if the Contractor exceeds the specified maximum permissible sound level or if a complaint is received from the public or an adjacent property owner. The Contractor shall have no claim for damages or delay should such permission be withdrawn.

Any request to perform Work on Saturdays between 6:00 a.m. and 7:00 p.m. only, shall be submitted to the Engineer no later than noon on the Working Day prior to the Saturday that the Contractor is requesting permission to work.

A request for approval to work on any such Day or at such time shall be submitted to the Engineer no later than ten (10) Working Days prior to the Day that the Contractor is requesting permission to work.

1-08.1(5) REIMBURSEMENT FOR OVERTIME WORK OF EMPLOYEES OF OWNER

If the Contractor requests permission to work on a Saturday, Sunday or Holiday, or longer than an 8-hour period on any Working Day, such work shall be considered as overtime work. On all such overtime work, the Contractor shall reimburse the Engineer for the full costs of straight time with benefits plus overtime for employees of the Owner who are required to work overtime hours on any project-related construction activity.

The Contractor hereby authorizes the Engineer to deduct the reimbursement required in the paragraph immediately above from any amount that might then be or thereafter become due or payable by the Owner to the Contractor under or by virtue of the Contract until such reimbursement has been recouped by the Owner.

1-08.2 ASSIGNMENT

The performance of the Work or any part of it shall not be assigned without written consent of the Owner. Consent will not be given to a proposed assignment that would relieve the Contractor or the Contractor's Surety of their responsibilities under the Contract.

The Contractor may assign moneys due or to become due to the Contractor under the Contract. This assignment will be recognized by the Owner, if given written notice, to the extent permitted by law. Assignment of monies shall be subject to all set-offs, withholdings, and deductions provided by law and under the Contract.

1-08.3 CONTRACTOR'S REQUIRED CRITICAL PATH SCHEDULE AND SUBMITTALS

1-08.3(1) CRITICAL PATH

The Contractor shall prepare initial, revised, and updated critical path schedules and shall submit to the Engineer eight (8) copies of colored graphic schedule charts and data printouts, and one (1) electronic copy on floppy disc in a format compatible with MS Office. Printouts shall include separate sorts by Activity Number and Total Float. The initial critical path schedule shall be submitted for the Engineer's review and acceptance no later than fourteen (14) Days after receipt of the Notice to Proceed. On major Projects of two hundred (200) Working Days or more, the Contractor will be allowed thirty (30) Days after the receipt of Notice to Proceed to submit a critical path schedule, but shall submit a preliminary schedule within fifteen (15) Days after the Notice to Proceed showing work activities during the first sixty (60) days of construction.

The Engineer allocates resources to a Contract based on the Contract Time. The Engineer will review and accept a critical path schedule indicating an early Physical Completion Date but cannot guarantee the Engineer's resources will be available to meet the accelerated critical path schedule. No additional compensation or time will be allowed if the Contractor is not able to meet its accelerated critical path schedule due to the unavailability of the Engineer's resources or for other reasons beyond the Engineer's control.

The critical path schedule, and any revised critical path schedule, shall:

1. Show completion of all Work within the Contract Time;
2. Show the proposed order and interdependence of the Work activities or the sequence in which the Work is to be accomplished including how the start of one work activity is restrained by the completion of other work activities;
3. Show the projected starting and completion times for:
 - a. Major phases of the Work;
 - b. All Work activity components integral to the major Work phases;
 - c. Milestone, time frame, and order of work when required in the Contract;
 - d. The total project completely planned and scheduled;
 - e. The critical path as indicated by a single path of critical Work activities; and;

- f. All utility relocation work that is to occur within the Contract Time.

The Contractor shall provide sufficient Material, equipment and labor, and shall provide the necessary coordination among Subcontractors, Materialpersons, and other necessary entities, to meet the completion times in this, and any revised, critical path schedule.

As the Work proceeds, the Contractor shall submit eight (8) copies of the revised critical path schedule(s) to the Engineer for review and acceptance. These revised critical path schedules shall reflect any change in the proposed order of the Work, any construction delay, or other condition that may affect the progress of the Work. The revised critical path schedule(s) shall not conflict with any time and/or order-of-work requirement in the Contract. The Contractor shall promptly notify the Engineer of any proposed revision to the accepted critical path schedule in effect, and shall submit the revised critical path schedule within fourteen (14) Days of giving notice. The Owner will make no payment under this Contract until a critical path schedule has been submitted, and reviewed and accepted by the Engineer. If the Engineer deems that the critical path schedule, or any revised critical path schedule, is not acceptable, the Engineer may request the Owner to withhold payment of progress estimates until an acceptable critical path schedule has been submitted by the Contractor. The project's critical path schedule shall be maintained by the Contractor during the duration of the Project so that an accurate indication of Project progress is available. When required by the Engineer during the course of the Work, the Contractor shall furnish to the Engineer within fourteen (14) Days after the Engineer's written notice, eight (8) copies of the critical path schedule in effect at the time.

The Engineer's review and acceptance of any critical path schedule shall not transfer any of the Contractor's responsibilities to the Owner. The Contractor, alone, shall remain responsible for adjusting forces, equipment, Materials, deliveries, staging, Work schedules, and as necessary to ensure completion of the Work within the time(s) specified in the Contract.

1-08.3(2) CONTRACTOR'S FIRST SUBMITTALS

Contractor submittals shall comply with the requirements of Section 1-05.3.

The following list contains submittals that are common to typical Work and unless the Contract specifies otherwise, have been identified as submittals to be first transmitted in preparing for and aiding with the administration of the Contract.

1. A method of removal and/or demolition plan and schedule,
2. Copies of permits required by the Contractor (Section 1-07.6),
3. Temporary Erosion and Sediment Control Plan (TESC Plan) (Section 8-01.3(2),
4. Traffic control plan, schedule, and safeguards to be used (Sections 1-07.23 and 1-10),
5. Materials catalog-cuts,
6. Sources of Materials (RAMS form) (Section 1-06.1),
7. Submittal Control Document (Section 1-05.3(2)B),
8. Critical Path Schedule (Section 1-08.3(1)), and
9. Spill Prevention and Control (SPC) Plan (see Section 1-07.5(5)).

The listed submittals that are applicable to the Work, and other submittals the Contract may identify as requiring early transmittal, shall be transmitted to the Engineer within fourteen (14) Days of the Notice to Proceed Date in the Notice to Proceed. On Projects of two hundred (200) Working Days or more, the Contractor will be allowed thirty (30) Days from the Notice to Proceed Date to transmit these submittals.

1-08.4 NOTICE TO PROCEED AND PROSECUTION OF THE WORK

Notice to Proceed will be given after the Contract has been executed and the Contract Bond and evidence of insurance have been approved and filed by the Owner. No portion of the Work shall begin within the Project Site or within sites furnished by the Engineer until the Contractor has been given the Notice to Proceed. The Contractor shall bear all risks for any portion of the Work begun outside such areas and for any Materials ordered before the Notice to Proceed has been given.

The Contractor shall begin the Work on the Notice to Proceed Date unless otherwise agreed. Thereafter, Work shall be prosecuted vigorously, diligently, and without unauthorized interruption until physical completion of the Work (see Sections 1-05.11(2) and 1-08.5). The Contractor shall not voluntarily shut down or slow Work operations without requesting and obtaining prior approval of the Engineer. Such approval shall not relieve the Contractor from the contractual obligation to complete the Work within the Contract Time.

1-08.5 TIME FOR COMPLETION

The Work shall be physically complete within the time specified in the Contract or as changed by the Engineer. Unless the Contract specifies otherwise, the Contract Time will be stated in "Working Days", shall begin on the Notice to Proceed Date, and shall end on the Contract Completion Date.

The Contract Time has been established to allow for periods of normal inclement weather that, from historical records, are to be expected during the Contract Time, and during such periods, Work is anticipated to be performed. Each successive Working Day, beginning with the Notice to Proceed Date and ending with the Physical Completion Date, shall be charged to the Contract Time as it occurs except a Day or part of a Day that is designated a Non-Working Day or an Engineer determined Unworkable Day.

The Engineer will furnish Contractor with a weekly report showing:

1. The number of Working Days charged against the Contract Time for the preceding week;
2. The Contract Time in Working Days;
3. The number of Working Days remaining in the Contract Time;

4. The revised Contract Completion Date as applicable;
5. The number of Non-Working Days; and
6. Any partial or whole Days during the immediately preceding week that the Engineer declared to be an Unworkable Day.

The Contractor will be allowed ten (10) Days after the date of each report in which to file a written notice of protest of an alleged discrepancy in the Contract Time as reported. Otherwise, the report will be deemed to have been accepted by the Contractor as correct.

This weekly report will be correlated with the Contractor's current accepted critical path schedule.

1-08.6 SUSPENSION OF WORK

The Contractor shall immediately suspend the Work or resume suspended Work only when ordered or authorized in writing to do so by the Engineer. The Engineer may suspend all or part of the Work and for such periods of time as the Engineer may deem proper if:

1. Unusually severe weather or such other conditions beyond the control of the Contractor has occurred that will, in the opinion of the Engineer, prevent satisfactory, safe, and timely performance of the Work.
2. The Contractor has failed to perform a material requirement of the Contract or failed to perform a written order given to the Contractor by the Engineer.

Suspension of the Work by the Engineer for either of the conditions 1 or 2 specified immediately above shall not be grounds for any claim by the Contractor for damages except as provided hereinafter.

Periods of suspension due to condition 1 in this Section will be considered excusable and counted as Unworkable Days if, prior to the suspension, the Contractor, in the Engineer's opinion, was performing the Work vigorously, diligently, and without unauthorized interruption in accordance with the Contractor's current accepted critical path schedule in effect at the time. Otherwise, the suspension may be considered non-excusable and all or part of the suspension period may be counted as Working Days. The Engineer will set the number of Unworkable Days (or parts of Days) by deciding how long the suspension delayed the entire project.

The periods of suspension due to condition 2 in this Section will be considered a non-excusable delay. This lost work time shall not relieve the Contractor from any contractual responsibility.

Requests for adjustments in the Contract Time or costs as a result of suspensions or delays to the Work will be evaluated pursuant to Section 1-08.8

1-08.7 MAINTENANCE DURING SUSPENSION

In preparing for or during suspensions of the Work (as described in Section 1-08.6), the Contractor shall do whatever is necessary to prevent damage to or deterioration of the Work. The Contractor's safety and maintenance responsibilities shall remain unchanged except for those assumed by the Engineer under the conditions set forth in this Section.

At no additional expense to the Owner, the Contractor shall provide a safe, smooth, and unobstructed roadway, sidewalk, and path for public use through the construction area during suspension of the Work as required by Section 1-07.23. This may include a temporary road or detour.

If the Engineer determines that the Contractor failed to pursue the Work vigorously, diligently, and without unauthorized interruption before the suspension, or failed to comply with the Contract or the Engineer's orders, the Contractor shall maintain the temporary roadway or detour in use during suspension. In this case, the Contractor shall bear the maintenance costs. If the Contractor fails to maintain the temporary roadway or detour, the Owner will do the maintenance work and deduct all resulting costs from payments due to the Contractor pursuant to Section 1-05.8.

If the Engineer determines that the Contractor has pursued the Work vigorously, diligently, and without unauthorized interruption before the suspension, the Owner will do the routine maintenance work and bear its cost. The maintenance performed by the Owner will include only routine maintenance of:

1. The Traveled Way and shoulders, and detour surface;
2. Roadway drainage along and under the traveled roadway or detour; and
3. All barricades, signs, and lights needed for directing traffic through the temporary roadway or detour in the construction area.

The Contractor shall protect, maintain and bear the costs of doing all other portions of the Work in areas not used for traffic.

After a suspension, during which the Owner has done the routine maintenance, the Contractor shall accept the traveled roadway or detour as is, when the Work resumes. The Contractor shall make no claim against the Owner for the condition of the roadway or detour.

After any suspension, the Contractor shall retain the responsibility for repairing or restoring the roadway, its slopes, and its drainage system to the requirements of the Contract.

1-08.8 TIME EXTENSIONS AND DELAYS - ENTITLEMENT AND COMPENSATION

1-08.8(1) GENERAL

The Engineer considers the Contract Time as sufficient to do all the Work. For this reason the Engineer will not grant a time extension for any reason other than those listed in Section 1-08.8(3)A.

The Contract will be extended for a period equivalent to the actual time the Work is suspended or delayed for an excusable reason. Entitlement, length of time extension, and applicable compensation will be determined by the Engineer.

If the Work is suspended or delayed and the Contractor believes the reason for the suspension or delay is excusable or compensable, the Contractor shall submit to the Engineer a written notice requesting an adjustment in the Contract Time, in the costs, or both. To be considered, the request shall be submitted to the Engineer no later than ten (10) Days after the claimed suspension or delay occurs. The request shall state the reasons why the adjustment should be granted. Upon receipt, the Engineer will evaluate the Contractor's request and determine if the:

1. Cost, time, or both:
 - a. The portion of the Work that was delayed on the critical path of the critical path schedule in effect at the time as specified in this Section below;
 - b. Has increased as a result of such suspension or delay;
 - c. Was caused by one or more conditions beyond the control of, and were not the fault of, the Contractor or any of the Contractor's Materialperson or Subcontractor at any approved tier; and
 - d. Was not an Unworkable Day;
2. Performance was not suspended or delayed by any other cause; and
3. Adjustment is not provided for, or specifically excluded, under any other term or condition of this Contract.

If the Engineer agrees that an adjustment is warranted considering all evaluation criteria stated in items 1, 2, and 3 immediately above, the Engineer will make an adjustment in Contract Time, or in cost, or in both (excluding profit) and modify the Contract accordingly. No adjustment will be allowed for any cost that was incurred by the Contractor more than ten (10) Days prior to the date the Engineer received the Contractor's written notice requesting an adjustment. The reasons for and times of extensions shall be determined by the Engineer and such determination shall be final pursuant to Section 1-05.1. Any disagreement with the Engineer's determination shall be pursued in accordance with Section 1-04.5.

The Contractor's accepted critical path schedule in effect at the start of the claimed delay will be used to evaluate the extent of the delay and the claimed delay's impact on the Contract Time. The Contractor shall be responsible for showing on this critical path schedule that the change or event:

- A. Had a specific impact on the critical path, and except in cases of concurrent delay, was the sole cause of such impact; and
- B. Could not have been avoided by resequencing of the Work or other reasonable alternative.

Failure of the Contractor to efficiently utilize all available time after the Notice to Proceed Date will be considered in evaluating requests for extensions of time.

The granting of a time extension or granting payment of additional compensation or granting of both will be made by Change Order, except that time extensions and/or payment of additional compensation for suspensions of the Work on Days determined by the Engineer to have been Unworkable Days shall be in accordance with this Section 1-08.8.

1-08.8(2) NON-EXCUSABLE DELAYS

Non-excusable delays shall be those delays caused by factors within the Contractor's control that could have been foreseen or avoided had the Contractor exercised due care, prudence, foresight, or diligence and pursued the Work vigorously and without unauthorized interruption. Non-excusable delays will not entitle the Contractor to an extension of time and will not be compensable.

Non-excusable delays include, but are not limited to:

1. Delays caused by or resulting from the Contractor's own Subcontractors or Materialpersons;
2. The Contractor's lack of sufficient working capital;
3. The default of the Contractor;
4. The Contractor's act or failure to act;
5. The Contractor's failure to procure Materials or to provide labor or to perform the Work according to the Contract;
6. Changes, protests, increased quantities, or changed conditions that do not delay the completion of the Contract or prove to be an invalid or inappropriate time extension request;
7. Delays caused by Contractor submittal as provided in Section 1-05.3"; and
8. Rejection of faulty or inappropriate equipment as provided in Section 1-05.9.

The Contract may be terminated for a non-excusable delay.

1-08.8(3) EXCUSABLE DELAYS

1-08.8(3)A GENERAL

Excusable delays shall be those delays caused by one or more factors beyond the control and without fault or negligence of the Contractor. Excusable delays:

1. May be compensable; and
2. Will entitle the Contractor to an extension of time:
 - a. If the activities that are subject to the delay are on the critical path of the accepted critical path schedule in effect at that time; and
 - b. The Contractor has submitted a request for an extension of time within the prescribed time limits.

Excusable delays shall be limited to:

1. Acts of nature; or
2. Acts of the public enemy; or
3. Acts of a government in its sovereign capacity; or

4. Acts or omissions or defaults of the Owner, or any of its officers and employees, including the Engineer, or of another Contractor employed by the Owner; or
5. Unforeseeable conditions not the fault of the Contractor;
6. Fires, floods due to nature or other casualty for which the Contractor is not responsible; or
7. Epidemics; or
8. Quarantine restrictions; or
9. Unusual transportation delays (freight embargoes); or
10. Strikes or combined actions of labor; or
11. Unusually severe weather as defined in the next to last paragraph in this Specification Section, provided that:
 - a. The Engineer has not already allowed it as an Unworkable Day under Section 1-08.5; and
 - b. The Contractor had timely filed a written notice of protest (per Section 1-08.5) asserting that time the Engineer charged as a Working Day should have been allowed as an Unworkable Day or portion thereof; and
 - c. The Engineer responded to the Contractor's written notice of protest of item 11b above with a written notice approving that time as an Unworkable Day or portion thereof; or
12. Any other conditions for which the Contract permits time extensions such as:
 - a. Section 1-04.4 if a change increases the time to do any of the Work including unchanged Work; or
 - b. Section 1-04.5:
 - (1) If increased time is part of a dispute that is found to be valid; or
 - (2) If a dispute or claim also involves a delay in completing the Contract and the dispute or claim proves to be valid; or
 - c. Section 1-04.6 if increases in the quantities of any Bid item of Work exceed 25 percent and these increases caused a delay in completing the Contract; or
 - d. Section 1-04.7 if a changed condition is determined to exist that caused a delay in completing the Contract; or
 - e. Section 1-05.3 if the Engineer's review does not approve properly prepared and acceptable Shop Drawings within the specified time frame; or
 - f. Section 1-07.13 if the performance of the Work is delayed as a result of damage by others not party to the Contract; or
 - g. Section 1-07.17 if the removal or the relocation of any utility by forces other than the Contractor caused a delay; or
 - h. Section 1-07.24 if a delay results from all the Right of Way necessary for the construction not being purchased and the Project Manual does not make specific provisions regarding unpurchased Right of Way; or
 - i. Section 1-08.6 if the performance of the Work is suspended, delayed, or interrupted for an unreasonable time that proves to be the responsibility of the Engineer or Owner; or
13. Exceptional causes not specifically identified in items 1 through 12, provided the request letter proves the Contractor had no control over the cause of the delay and could have done nothing to avoid or shorten it.

Foreseeability shall modify all factors in determination of entitlement to an excusable delay.

Normal inclement weather that, from historical records, is to be expected and during which the Work is anticipated to be performed shall not be considered unworkable or unusually severe weather. The Contractor shall consider normal inclement weather in the preparation of the critical path schedule and if the Contractor elects not to perform the Work during periods of normal inclement weather, the Contractor will not be entitled to an extension of time for these periods of non-work. Unusually severe weather, as determined by the Engineer, is weather disturbance during which the Contractor is unable to perform the Work in strict accordance with the requirements of the Contract (see this Section 1-08.8(3)A item 11) including but not limited to:

1. Prolonged periods of snow;
2. Freezing temperatures; or
3. Above-average rainfall.

The Contract cannot be terminated for an excusable delay.

1-08.8(3)B COMPENSABLE DELAYS

Compensation will be provided for an increase in cost of performance of the Work (excluding profit) if the performance of all or any part of the Work is suspended or delayed for an unreasonable period of time by an act of the Engineer or the Owner in the administration of the Work and such act is not expressly or implicitly authorized by the Contract; or by failure of the Engineer or Owner to act within a time period specified in the Contract (or if no time is specified, within a reasonable time). However, no adjustment will be made under this Section for a suspension or delay if:

1. The performance would have been suspended or delayed by any other cause including the fault or negligence of the Contractor, or
2. Compensation is provided for or excluded under any other provision of the Contract (i.e. Concurrent Delays).

Compensable time extensions may be granted for reasons arising from the "CHANGES" or "CHANGED CONDITIONS (DIFFERING SITE CONDITIONS)" Contract provisions. However, a time extension granted under the "CHANGES" or "CHANGED CONDITIONS (DIFFERING SITE CONDITIONS)" Contract provisions shall not be considered a delay or suspension of the Work as defined in this Section. If the Contractor believes an excusable delay is compensable, the Contractor shall immediately submit a written request for adjustment as specified in Section 1-08.8(1). The Engineer will

determine if an equitable adjustment in cost or time is due. The equitable adjustment for increase in costs, if due, shall be subject to the limitations provided in Section 1-09.4, provided that no profit of any kind will be allowed on any increase in cost necessarily caused by the suspension, delay, or interruption.

The Engineer's determination as to whether an adjustment should be made will be final unless the decision is disputed in accordance with the dispute resolution procedures specified in Sections 1-04.5.

1-08.8(3)C NON-COMPENSABLE DELAYS

Non-compensable delays are delays to the completion of the Work arising from conditions beyond the control and without fault or negligence of the Contractor, the Engineer, or the Owner. Non-compensable delays include, but are not limited to:

1. Acts of nature;
2. Acts of the public enemy;
3. Fires;
4. Floods due to nature;
5. Epidemics and quarantine restrictions;
6. Unusual transportation delays (freight embargoes);
7. Strikes or combined actions of labor;
8. Unusually severe weather;
9. Delays of Subcontractor or Materialperson at any tier.

1-08.8(4) CONCURRENT DELAYS

Concurrent delays are those delays where progress on critical path activities is impeded over the same period of time due to causes attributable to both the Contractor, and Engineer or Owner. In the event of a concurrent delay, neither party shall be entitled to compensation from the other, over the period of time that concurrency of delay exists.

Time is of the essence to the Contract. Delays inconvenience the public and increase the time needed for administration, engineering, inspection and supervision.

Because it is impractical to calculate the actual cost of delays, Liquidated Damages have been agreed upon to provide compensation for damages resulting from failure to complete the Contract on time. Such obligation shall not be construed as a penalty.

The Contractor:

1. Shall pay Liquidated Damages for delay or for overruns in the Contract Time as set forth below; and
2. Authorizes the Engineer to deduct these damages from any money due or to become due to the Contractor.

For overruns in Contract Time occurring before the Substantial Completion Date and for overruns in Contract Time occurring before the Physical Completion Date, the applicable Liquidated Damages set forth in Section 4 of the Agreement Form will apply.

Liquidated Damages will not be assessed for any Day for which an extension of time is granted. No deduction or payment of such damages for delay will release the Contractor, in any degree, from further obligations and liabilities to complete the entire Contract.

1-08.9 VACANT

1-08.10 TERMINATION OF CONTRACT

1-08.10(1) TERMINATION FOR DEFAULT

The Owner may terminate the Contract upon the occurrence of any one or more of the following events:

1. If the Contractor fails to supply sufficient skilled workers or suitable Materials or equipment;
2. If the Contractor refuses or fails to prosecute the Work with such diligence as will ensure its physical completion within the Contract Time and any extension of time that may have been granted to the Contractor by Change Order or otherwise;
3. If the Contractor is adjudged bankrupt or insolvent, or makes a general assignment for the benefit of creditors, or if the Contractor or a third party files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or similar laws concerning the Contractor, or if a trustee or receiver is appointed for the Contractor or for any of the Contractor's property on account of the Contractor's insolvency, and the Contractor or its successor in interest does not provide the Engineer adequate assurance of future performance in accordance with the Contract within 15-Days of receipt by the Contractor or its successor in interest of a request for assurance from the Engineer;
4. If the Contractor disregards any law, ordinance, rule, code, regulation, order or similar requirement of any public entity having jurisdiction;
5. If the Contractor disregards the authority of the Engineer;
6. If the Contractor performs any portion of the Work in a way that deviates from the Contract requirements, and neglects or refuses to correct any rejected performance; or
7. If the Contractor otherwise violates in any material way any material provision or requirement of the Contract.

Once the Owner determines that sufficient cause exists to terminate the Contract, written notice will be given to the Contractor and its Surety indicating that the Contractor is in breach of the Contract and that the Contractor is to remedy the breach within fifteen (15) -Days after the written notice is delivered. In case of an emergency such as potential damage to life

or property, the response time to remedy the breach after the written notice may be shortened. If the remedy does not take place to the satisfaction of the Engineer, the Engineer, by serving written notice to the Contractor and Surety, may either:

1. Transfer the performance of the Work from the Contractor to the Surety; or
2. Terminate the Contract and, at the Engineer's option, prosecute it to completion by Contract or by other means. Any extra costs or damages to the Owner shall be deducted from any money due or coming due to the Contractor or Surety under the Contract.

If the Owner elects to pursue one remedy, it will not bar the Owner from pursuing other remedies on the same or subsequent breaches.

Upon receipt of a written notice that the Work is being transferred to the Surety, the Surety shall enter upon the Project Site and take possession of all Materials, tools, and appliances for the purpose of completing the Work pursuant to the Contract and employ by contract or otherwise any person or persons satisfactory to the Engineer to finish the Work and provide the Materials without termination of the Contract. Such employment shall not relieve the Surety of its obligations under the Contract and the Contract Bond. If there is a transfer to the Surety, payments on progress estimates covering the Work subsequent to the transfer shall be made to the extent permitted under law to the Surety or its agent without any right of the Contractor to make any claim against the Owner for such sums.

If the Contractor fails to correct any material breach within the time specified in the Owner's written notice and if the Owner terminates the Contract or provides such sufficiency of labor or Materials as is required to complete the Work, then the Contractor shall not be entitled to receive any further payment on the Work until the Work has been fully performed. The Contractor shall bear all extra expenses incurred by the Owner in completing the Work, including all increased costs for completing the Work, and all damages sustained, or that may be sustained, by the Owner by reason of such refusal, neglect, failure, or discontinuance of the Work by the Contractor. If Liquidated Damages are for provided in the Contract, the Contractor shall be liable for whatever amount of such damages accrues through the Substantial Completion Date. After all the Work encompassed by the Contract has been completed, the Engineer will calculate the total expenses and damages for the completed Work. If the total expenses and damages are less than any unpaid balance due the Contractor, the excess will be paid by the Owner to the Contractor. If the total expenses and damages exceed the unpaid balance, the Contractor and the Surety shall be jointly and severally liable to the Owner and shall pay the difference to the Owner on demand.

In exercising the Engineer's right to prosecute the Work to physical completion, the Engineer shall have the right to exercise sole discretion as to the manner, method, and reasonableness of the costs of completing the Work. In the event that the Owner takes Bids for remedial work or physical completion of the project, the Contractor shall not be eligible for the Award of such contract.

In the event the Contract is terminated, the termination of the Contract shall not affect any rights of the Owner against the Contractor. The rights and remedies of the Owner under the termination clause are in addition to any other rights and remedies provided by law or under this Contract. Any retention or payment of monies to the Contractor by the Owner will not release the Contractor from liability.

If a written notice of termination for default has been issued and it is later determined for any reason that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the written notice of termination had been issued pursuant to Termination for Public Convenience in Section 1-08.10(2). This result shall apply where the Contract is terminated for default because of failure to prosecute the Work, and where a Contractor's delay was found to be excusable under the provisions of Section 1-08.8.

1-08.10(2) TERMINATION FOR PUBLIC CONVENIENCE

The Owner may terminate the Contract in whole, or from time to time in part, whenever:

1. The Contractor is prevented from proceeding with the Work as a direct result of an Executive Order of the President with respect to the prosecution of war or in the interest of national defense; or an Executive Order of the President or Governor of the State with respect to the preservation of energy resources;
2. The Contractor is prevented from proceeding with the Work by reason of a preliminary, special, or permanent restraining order of a court of competent jurisdiction where the issuance of such restraining order is primarily caused by an act or omission of a person or agency other than the Contractor; or
3. The Owner determines that such termination is in the best interests of the Owner.

1-08.10(3) PAYMENT FOR TERMINATION FOR PUBLIC CONVENIENCE

Whenever the Contract is terminated in accordance with Section 1-08.10(2), payment will be made for actual Work performed at Bid item prices for completed Bid items of the Work. An equitable adjustment for partially completed Bid items of Work and disposal of Materials will be made as provided in Section 1-09.5.

1-08.10(4) TERMINATION CLAIM BY CONTRACTOR

After receipt of a written notice of termination of Contract for public convenience, the Contractor shall submit to the Engineer a termination claim in sufficient detail to enable the Engineer to ascertain the basis and amount of the claim. The claim shall provide the minimum detailed information required by Section 1-04.5(3). The claim shall be submitted promptly but in no event later than sixty (60) Days after the effective date of termination. The Contractor shall pursue resolution of the claim through the established administrative channels of the Owner. The Contractor shall make its business and office records available to the extent necessary for the Engineer to verify the Contractor's claim and to determine the amount of entitlement per Section 1-09.12. Subject to the provisions of Section 1-05.1, the decision of the Engineer shall be final.

1-08.10(5) TERMINATION FOR DELAYS DUE TO LITIGATION

Pursuant to RCW 60.28.080, if the delay caused by litigation exceeds six months, the Contractor may then elect to terminate the Contract and receive payment in proportion to the amount of the Work completed plus the cost of the delay. Amounts retained and accumulated under RCW 60.28.011 shall be held for a period of sixty (60) Days following the election of the Contractor to terminate.

1-08.10(6) RESPONSIBILITY OF THE CONTRACTOR AND SURETY

Termination of the Contract or an Order of Debarment shall not relieve the:

1. Contractor of any responsibilities under the Contract for Work performed; or
2. Surety or Sureties of obligations under the Contract Bond, and Retainage Bond if applicable, for Work performed.

1-08.10(7) TERMINATION BEFORE COMPLETION

Pursuant to RCW 60.28.011(7), if after a substantial portion of the Work has been completed, an unreasonable delay will occur in the completion of the remaining portion of the Contract for any reason not the result of a breach thereof, the Owner may, if the Contractor agrees, delete from the Contract the remaining Work and accept as final the Improvement at the stage of completion then attained and make payment in proportion to the amount of the Work accomplished. In such case, whatever amount of the Contractor's compensation has been retained and accumulated pursuant to RCW 60.28.011(7) shall be held for the statutory period of sixty (60) Days following the establishment of the Completion Date. In the event that the Work shall have been terminated before Completion, the Owner may thereafter enter into a new contract with the same Contractor without an Advertisement for Bids or Bid for the performance of the remaining Work or Improvement for an amount equal to or less than the cost of the remaining Work under the original Contract.

1-08.10(8) DEBARMENT

The Owner may debar a Contractor pursuant to the provisions of SMC CH. 20.70. The debarment provisions are specified in Contractor/Subcontractor Performance Evaluation Program located in the Appendix of the Project Manual.

SECTION 1-09 MEASUREMENT AND PAYMENT**1-09.1 MEASUREMENT OF QUANTITIES**

In measuring all acceptably completed Bid items of Work, the Engineer will:

1. Use United States standard measure.
2. Make all measurements as described in this Section, unless individual Specifications require otherwise.
3. Follow methods generally recognized as conforming to good engineering practice.
4. Conform to the usual practice of the Owner by carrying measurements and computations to the proper significant figure or fraction of units for each Bid item.
5. Measure horizontally or vertically (unless otherwise specified).

The terms listed below shall be defined as follows in all measurements under this Section:

1. **Lump Sum (when used as a Bid item of payment):** Complete payment for the work described for that item in the Contract.
2. **Gauge:**
 - a. **In the measurement of plates:** the U.S. Standard Gauge.
 - b. **In the measurement of galvanized sheets used to manufacture corrugated metal pipe, metal plate pipe Contracts and arches, and metal cribbing:** that specified in AASHTO M 36, M 167, M 196, M 197, or M 219.
 - c. **In the measurement of wire:** that specified in AASHTO M 32.
3. **Ton:** The short ton is equal to 2,000 pounds of avoirdupois weight. All Materials that are measured or proportioned by weight will be weighed according to the requirements of Section 1-09.2. If Material is shipped by rail, the car weight may be accepted provided only the actual weight of Material is paid for. However, car weights will not be acceptable for Material to be passed through mixing plants.

For each basis of measurement listed below, the Engineer will use the method of measurement described. For Bid items or Materials measured on the basis of:

1. **Square Yard or Square Foot:** The measurement shall be a calculation from the neat dimensions shown on the Drawings or as altered by the Engineer. If there is an exception within the measured area where the item of Work is not performed (such as a drainage Structure within a measured sidewalk) and if the exception area is greater than 9 square feet, then the area of the exception will be subtracted from the payment area calculated from the neat dimensions.
2. **Linear Foot:** Pipe Contracts, guardrail, under drains, etc. shall be measured parallel to the Structure's base or foundation, unless the Drawings require otherwise.
3. **Weight:** Weighed as required in Section 1-09.2.
4. **Volume:**
 - a. **Excavation and Embankment:** Measured by the average-end-area method or by the finite element analysis method utilizing digital terrain modeling techniques. All or some computations may be based on ground elevations and other data derived photogrammetrically. The Engineer may correct for curvature.
 - b. **In Hauling Vehicle:** Measured at the point of delivery. Hauling vehicles may be of any size or type the Engineer approves provided that the body is of such shape that the actual contents may

be readily and accurately determined. If the Engineer requires, the Contractor shall level loads at the delivery point to facilitate measurement.

- c. **Mineral Aggregates:** Measured by the cubic yard compacted in place to the neat line dimensions indicated on the Drawings or Standard Plans.

Minor incidental construction items for which the Contract requires measurement by weight may, at the Contractor's request and with the Engineer's approval, be converted to weight from volume measurements using the factor of 1.25 tons per cubic yard of volume measure.

For each item listed below, the Engineer will use the method of measurement described:

1. **Structures:** Measured on the neat lines shown in the Drawings or as altered by the Engineer. When a complete structure or structural unit is specified as the unit of measurement, the unit shall include all fittings and accessories.
2. **Timber:** Measured by the thousand board feet (MBM) actually used in the Structure. Measurements will be based on the nominal width, thickness, and the extreme length of each piece.
3. **Standard Manufactured Items:** Fence, wire, plates, rolled shapes, pipe conduit, etc., when specified shall be measured by the manufacturer's identification of gage, unit weight, section dimension, etc. The Engineer will accept manufacturing tolerances set by each industry unless cited Specifications require more stringent tolerances.
4. **Portland Cement:** Measured by the pound, ton, or sack. A sack shall mean a sack weighing 94 pounds.
5. **Asphalt:** Measured by the gallon or ton. If measured by gallon, measurement will be made at 60°F (or will be corrected to the volume at 60°F in keeping with ASTM D 1250). If shipped by rail, truck, or transport, measurement will be by net certified scale weights or certified volumes (corrected for Material lost en route or not actually incorporated into the Work). The Engineer will use the volume-weight conversion table below to compute asphalt measurements:

Conversion Factors
Average Weights and Volumes of Asphalt

Grade	Gallons per Ton	Pounds per Gallons
Liquid Asphalt	@ 60°F	@ 60°F
70	253	7.90
250	249	8.03
800	245	8.16
3000	241	8.30
Paving Asphalt		
All PG Grades	235	8.51
Emulsified Asphalt		
All Grades	240	8.33

No measurement will be made for:

1. Work performed or Materials placed outside lines shown in the Drawings or set by the Engineer.
2. Materials wasted, used, or disposed of in a manner contrary to the Contract.
3. Rejected materials (including those rejected after placement if the rejection resulted from the Contractor's failure to comply with the Contract).
4. Hauling and disposing of rejected materials.
5. Material remaining on hand after the Work is completed, except as provided in Section 1-09.8.
6. Any other Work or material contrary to any Contract provision.

1-09.2 WEIGHING EQUIPMENT

1-09.2(1) GENERAL REQUIREMENTS FOR WEIGHING EQUIPMENT

Materials proportioned, or measured and paid for by weight shall be weighed on accurate, approved scales by competent, qualified personnel at locations satisfactory to the Engineer.

Scales for the weighing of natural, manufactured, or processed construction materials obtained from natural deposits, stockpiles, or bunkers which are required to be proportioned or measured and paid for by weight, shall be furnished, erected and maintained by the Contractor, or shall be certified, permanently installed commercial scales.

Each truck to be weighed shall bear a unique identification number. This number shall be legible and in plain view of the scale operator. Trucks used to haul Material being paid for by weight shall be weighed empty at least twice daily or at such times as the Engineer directs. Duplicate weight tickets shall be prepared and accompany each truckload of Material delivered to the project. The duplicate weight tickets shall be submitted to the Engineer on the Day of delivery. The tickets shall be legible and contain the following information:

1. Preprinted ticket serial number,
2. Identification number of truck/truck trailer,
3. Date and hour of weighing,
4. Type of Material,
5. Weight of load including gross, tare and net weights. If the scale has a tare beam so the net weight can be read directly, only the net weight need be recorded on the ticket.

6. Weighman's identification,
7. Item number,
8. Contract number,
9. Unit of measure,
10. Legal gross weight in remarks section, and
11. Location of delivery (station or by street name).

The net weight of Material measured by the ton that is being placed in each truck shall be printed on the ticket by an automatic weighing device from a certified scale.

Scales shall:

- 1) Be accurate to within one-half of 1 percent throughout the range of use,
- 2) Not include spring balances,
- 3) Include beams, dials, or other reliable readout equipment,
- 4) Be arranged so that operators and Inspectors can safely and easily see the dials, beams, rods, and operating scale mechanisms,
- 5) Be built to prevent scale parts from binding, vibrating, or being displaced and to protect all working parts from falling material, wind, and weather, and
- 6) Be carefully maintained, with
 - a. Bunkers and platforms kept clear of accumulated materials that could cause errors.
 - b. Knife edges given extra care and protection.

At each batch and platform scale location, the Contractor shall keep 10 standard 50-pound weights for scale calibration and testing. If the Engineer has approved other calibration and testing equipment, the Contractor may substitute the approved other equipment for these weights.

1-09.2(2) SPECIFIC REQUIREMENTS FOR BATCHING SCALES

All Materials proportioned by weight shall be weighed on an accurate, approved scale by qualified operators employed by the Contractor. Scale locations require the Engineer's approval.

Each scale shall be designed to support a weighing hopper. The arrangement shall make it convenient for the operator to remove Material from the hopper while watching readout devices. Any hopper mounted on a platform scale shall have its center of gravity directly over the platform centerline.

Marked intervals on the readout device shall be spaced evenly throughout and shall be based on the scale's nominal rated capacity. These intervals shall be at least 1-pound, but shall not exceed one-tenth of 1 percent of nominal rated capacity.

An agent of the scale manufacturer shall test and service any batch scale before its use at each new site and then at 6-month intervals. The Contractor shall provide the Engineer a copy of the final results after each test. Whenever the Engineer requests, the Contractor's operator(s) shall test the scale while the Inspector observes.

Portland or asphalt cement shall be weighed on a scale not used for other materials.

1-09.2(3) SPECIFIC REQUIREMENTS FOR PLATFORM SCALES

Platform scales shall be certified scales that automatically print the net, tare, and gross weights on the ticket and shall have the size and capacity to weigh an entire hauling vehicle or combination of connected vehicles at one time. No part of the connected vehicle or combination shall be off the platform at the time of weighing.

A platform scale operator shall be designated by the Contractor to weigh all materials on the Contractor's platform scales and make the records thereof. The Contractor may also elect to use commercial scales. The Contractor shall furnish approved load tickets at the scale and legible duplicate copies to the Engineer at the delivery point and guarantee permission for Owner personnel to periodically observe the weighing and to check and compile the daily record of scale weights. Tare weights of each conveyance shall be taken two or more times daily.

Each commercial and certified weigher shall check the scales at least daily. The scales check methods and documentation procedures for scale checks and recording tare weights shall be approved by the Engineer. Checks shall be made throughout each Day to see that the scales are balanced and return to zero when no load is on them.

Any Contractor-supplied scale shall include a scale house with a floor space of at least 6 by 10 feet. The scale house shall be wind and weather tight, shall have windows for light and ventilation, shall include a door, and shall be lockable. It shall include a table, a chair, electrical power, and a space heater. The Contractor shall provide a rest room near the scale house.

Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end to eliminate binding and shifting. The platform scale beam or dial shall have graduated intervals of no more than 40 pounds. When testing the scales, the weights shall be read and recorded to the nearest 20 pounds and during weighing operations, weights shall be read and recorded to the nearest hundred weight (cwt.).

Before use at a new site and every six months thereafter, the scales shall be approved in accordance with local ordinances or rules of the State Department of Agriculture's Weights and Measures Section, or be serviced and tested by a scale company representative with at least 10,000 pounds, with a copy of the final test results provided to the Engineer.

1-09.2(4) SPECIFIC REQUIREMENTS FOR BELT CONVEYOR SCALES

Conveyor belt weighing may be accepted for untreated Materials provided that this method or device meets the general requirements of weighing equipment.

Belt conveyor scales shall meet the requirements for belt conveyor scales as specified in the National Bureau of Standards, Handbook No. 44, except as modified by these Specifications.

A daily static-load test shall be made after an approximate 1/2 hour of continuous running of the belt conveyor and whenever the air temperature varies significantly. A chain test will be required whenever a need for adjustment has been determined by the daily static-load test.

The test chain calibration computation, calibration procedures and results, and related documents shall be available for review by the Engineer. The test chain shall be clearly marked with its calibration. The test chain shall be carried in a suitable container and shall be immediately available for testing of the best conveyor scales.

Comparisons of accuracy may be made by checking the average of 5 or more sequential hauling unit payloads on platform scales meeting the requirements of these Specifications. A comparative accuracy of ± 0.5 % of the payload of the average hauling unit will be acceptable. Since the recording odometer, of conveyor belt scales in general use, is graduated in 0.1 ton (i.e. 200 lbs.) increments and, since the recording is a cumulative process, minor differences in reading or variations smaller than 0.1 ton carry over from one vehicle unit to another. For greater accuracy, confirmation of the conveyor weights will be based on the tonnage values obtained from readings taken from the sealed odometer at the beginning and end of each check period. The number of check loads may be increased by the Engineer should the test results fluctuate.

The Contractor shall furnish appropriate serially numbered tickets as approved by the Engineer for self-printing of the time and date of loading and the approximate load out weight. Each ticket shall be imprinted from a recording device at the loading point by the truck driver and delivered to the Engineer at the Project Site. The delivered ticket shall be marked with hauling conveyance equipment number.

The recording tape, odometer, totalizer, calibration adjustment and clock-time imprinter shall be secured and locked. All keys shall be in the possession of the Engineer.

1-09.2(5) UNDERWEIGHING / OVERWEIGHING SCALES

In the event inspection, or random checks, reveals that scales have been underweighing, the scales shall be adjusted and no additional payment to the Contractor will be allowed for Materials previously weighed and recorded. Scales overweighing (indicating more than true weight) will not be permitted to operate and all Materials received subsequent to the last previous corrected weighing accuracy test will be reduced by the percentage of error in excess of one-half of one percent. No payment will be made for Materials received by weight which have not been weighed in accordance with the foregoing Specification or other methods specifically approved in writing for the individual project. In the event these random checks result in net weights that are different by more than 1 percent of the smaller net weight, the Contractor shall, at the Engineer's option, thereafter utilize a certified scale of the Engineer's choice.

1-09.2(6) PAYMENT

All costs in connection with furnishing, installing, certifying and maintaining scales for furnishing check weights and scale house and for all other items specified in this Section for the weighing of construction Materials for proportioning or payment shall be included in the Bid item prices for the various Bid items of Work which comprise the Contract.

1-09.3 SCOPE OF PAYMENT

1-09.3(1) GENERAL

The Contractor shall receive and accept compensation provided in the Contract as full payment for the following:

1. Furnishing all Materials and for performing all Work under the Contract in a complete and acceptable manner including changes in the Work, Materials, or Drawings as provided for by approved Change Orders.
2. All risks, loss, damage, or expense of whatever character arising out of the nature or prosecution of the Work.
3. All expense incurred in consequence of the suspension or discontinuance of the Work as specified in the Contract.

The payment of any estimate or retained percentage shall not relieve the Contractor of the obligation to make good any defective Work or unauthorized Work or defective Materials.

Unless the Contract provides otherwise, the Bid item prices for the various Bid items of the Work listed in the Bid Form shall be full compensation for all labor, Materials, Supplies, equipment, tools, and all things of whatever nature required for the complete incorporation of the Bid item into the Work, the same as though the Bid item were to read "in place".

The term, "lump sum", when used as a Bid item or Bid items of payment means full compensation for the Work described for that Bid item(s) in the Contract.

Unless modified otherwise in the Contract, the Bid items listed or referenced in the "Payment" clause of each Section of the Standard Specifications, will be the only Bid items for which compensation will be made for the Work described in or specified in that particular Section. Should the Contractor perform Work that is listed as a Bid item in a "Payment" clause but not in the Bid Form, then payment for that Work will be made in accordance with Section 1-04.1(2).

If the "Payment" clause in the Specifications relating to any Bid item price in the Bid Form requires that said Bid item price cover and be considered compensation for certain Work or Material essential to the item, then the Work or Material will not be measured or paid for under any other Bid item which may appear elsewhere in the Bid Form or Specifications.

Certain Bid items appearing in the Standard Specifications may be modified in the Contract to include words such as:

- 1) "For Structure", or "For Concrete Barrier", or "For Bridge", etc. with the intent of clarifying specific use; and/or
- 2) "Site (site designation)", with the intent of clarifying where a specific item of Work is to be performed.

Modifications of the Bid items in this manner shall not change the intent of the Specifications relating to these items.

Payment for Bid items listed or referenced in the "Payment" clause of any particular Section of the Specifications shall be considered as including all of the Work required, specified, or described in that particular Section. Payment items will generally be listed generically in the Specifications, [e.g., "Manhole (type)"] and specifically in the Bid form (e.g., "Manhole, Type 202A"). When items are to be "furnished" under one payment item and "installed" under another payment item, such items shall be furnished FOB to the Project Site, or, if specified in the Contract, delivered to a designated Owner site. Materials to be "furnished", or "furnished and installed" under these conditions, shall be the responsibility of the Contractor with regard to storage until such items are incorporated into the Work or, if such items are not to be incorporated into the Work, delivered to the applicable City storage site when provided for in the Specifications.

Payment for Material "furnished", but not yet incorporated into the Work, may be made on progress estimates to the extent allowed.

1-09.3(2) LUMP SUM BREAKDOWN

The Contractor shall submit at the preconstruction meeting a breakdown of costs for each lump sum Bid item. The cost breakdown shall list the labor, equipment, Material, Supplies, profit and overhead for the Bid item in a form acceptable to the Engineer. These costs will then be used as a guideline for determining partial payments or deductions for authorized changes in the Work. The Engineer will not make progress payments on lump sum Bid item Work where that Work extends through more than one monthly progress estimate without the required lump sum breakdown.

1-09.4 EQUITABLE ADJUSTMENT FOR CHANGES

1-09.4(1) CHANGES IN CONTRACT WORK

Payment for work pursuant to a Change Order (other than deleted work) shall be full compensation for any such change. The amount of payment shall be determined by one or more of the following methods:

1. by Bid item prices contained in the Bid;
2. by unit prices mutually agreed upon;
3. by mutual acceptance of a lump sum price; or
4. by Force Account.

When the Work performed can be measured and paid for at Bid item prices or unit prices in methods (1) and (2), it will be measured and paid for at such prices. When payment is by lump sum in method (3), the Contractor shall provide substantiation of the lump sum price in accordance with Section 1-09.3(2). Payment by methods (1), (2), and (3) shall include all costs for overhead and profit except that any mark-ups for overhead and profit included in any computation requested to justify a lump sum agreed price shall be limited to those permitted for method (4) force account. If the Contractor and Engineer are unable to agree on compensation by methods (1), (2), or (3), then the Engineer will determine the compensation, or if deemed appropriate by the Engineer, compensation will be paid by method (4) force account.

When payment for extra work is by lump sum, agreed price or by Bid item prices mutually agreed upon, the Contractor shall include in the agreed price(s), retail sales tax on taxable materials when such extra work is for improving public roads. When the extra work is for water systems, sanitary Sewer systems, sewage disposal facilities, electrical distribution and transmission systems, or other work not related to public roads, the Contractor shall not include retail sales tax in the agreed price.

1-09.4(2) CHANGES IN LAW OR TAXES

Adjustments in the amount to be paid by the Owner under the terms and conditions of the Contract will not be made as a result of any change in laws, ordinances or regulations except as specifically provided by the following:

1. **Changes in Laws:** The Owner will not adjust payment to compensate the Contractor for changes in legal requirements unless those changes are specifically within the scope of RCW 39.04.120. For changes under RCW 39.04.120 the Owner will compensate the Contractor in accordance with Section 1-09.4(1).
2. **Changes in Taxes:** The Owner will adjust payment to compensate for tax changes under the following conditions:
 - a. The changes involve federal or State taxes on materials used in or consumed for the Work.
 - b. The changes increase Contractor-paid taxes by more than \$500.
 - c. For items in the original Contract, the tax change must occur after the Bid Opening Date.
 - d. For negotiated Contracts, the tax change must take place after the execution date of the Contract.
 - e. The Contractor if requested by the Engineer certifies in writing that the Awarded Contract Price does not include an extra amount to cover a possible change in taxes.
 - f. The Contractor permits the Owner to audit the Contractor's records to the extent necessary to substantiate any claim for compensation under the provisions of this Section.

Within the above conditions the Owner will adjust compensation by the actual dollar amounts of increase or decrease caused by the tax changes.

1-09.5 DELETED OR TERMINATED WORK

The Engineer may delete work by Change Order as provided in Section 1-04.4. The Owner may terminate the Contract in whole or part as provided in Section 1-08.10. When the Contract is terminated in part, the partial termination shall be treated as a deletion Change Order for payment purposes under this Section.

Payment for completed items will be at Bid item prices.

When any item is deleted in whole or in part by Change Order or when the Contract is terminated in whole or in part, payment for deleted or terminated work will be made as follows:

1. Payment will be made for the actual number of units of work completed at the Bid item unit prices unless the Engineer determines the Bid item unit prices are inappropriate for the work actually performed. When that determination is made by the Engineer, payment for work performed will be as mutually agreed. If the parties cannot agree the Engineer will determine the amount of the equitable adjustment in accordance with Section 1-09.4.
2. Payment for partially completed lump sum Bid items will be as mutually agreed. If the parties cannot agree, the Engineer will determine the amount of the equitable adjustment in accordance with Section 1-09.4.
3. To the extent not paid for by the Bid item prices for the completed units of work, the Owner will pay as part of the equitable adjustment those direct costs necessarily and actually incurred by the Contractor in anticipation of performing the Work that has been deleted or terminated.
4. The total payment for any one Bid item in the case of a deletion or partial termination shall not exceed the Bid item price as modified by approved Change Orders less the estimated cost (including overhead and profit) to complete the Bid item of work and less any amount paid to the Contractor for the Bid item.
5. The total payment where the Contract is terminated in its entirety shall not exceed the Revised Contract Price less those amounts paid to the Contractor before the effective date of the termination.
6. No claim for damages of any kind or for loss of anticipated profits on deleted or terminated work will be allowed because of the termination or Change Order.

Contract Time shall be adjusted as the parties agree. If the parties cannot agree, the Engineer will determine the equitable adjustment for Contract Time.

Acceptable Materials ordered by the Contractor prior to the date the Work was terminated as provided in Section 1-08.10(2) by the Owner or deleted as provided in Section 1-04.4 by the Engineer, will either be purchased from the Contractor by the Owner at the actual cost and shall become the property of the Owner, or the Owner will reimburse the Contractor for the actual costs connected with returning these Materials to the Materialperson.

1-09.6 FORCE ACCOUNT

1-09.6(1) GENERAL

The terms of the Contract or of a Change Order may call for Work or Material to be paid for by force account. If so, then the objective of Section 1-09.6 is to reimburse the Contractor for all costs associated with force account Work, including costs of labor, small tools, Supplies, equipment, specialized services, Materials, applicable taxes and overhead and to include a profit commensurate with those costs. The amount to be paid shall be determined as specified in Sections 1-09.6(2) through and including 1-09.6(7).

1-09.6(2) LABOR

Labor reimbursement calculations shall be based on a Contractor's "Project Labor List" (Contractor's List) prepared and submitted by the Contractor before the Contractor commences force account Work (see "Contractor's Project Labor List" Form located in the Appendix of the Project Manual). Once a Contractor's List is accepted by the Engineer, it shall be used to calculate force account labor payment until a requested revised Contractor's List is submitted and accepted. The Engineer may compare the Contractor's List to payrolls and other documents and may, at any time, request the Contractor to submit a revised Contractor's List. The Contractor may also submit a revised Contractor's List at any time for review and acceptance without such a request from the Engineer. Payment calculations made by the Engineer prior to acceptance of a revised Contractor's List shall not be adjusted as a result of a revised Contractor's List.

To be accepted, the Contractor's List must be accurate and meet the requirements of this Section 1-09.6(2). The Contractor's List shall include regular time rates and overtime rates for all employees (or work classifications) expected to participate in force account Work. These rates shall include the basic wage and fringe benefits, the current rates for Federal Insurance Compensation (FICA), Federal Unemployment Tax Act (FUTA) and State Unemployment Tax Act (SUTA), the company's present rates for Medical Aid and Industrial Insurance premiums and the planned payments for travel and per diem compensation. These rates shall also include an allocation of costs of safety training and health testing. This allocation shall assure that the amount included for force account is reasonably proportional to the total costs applied to all Work.

In the event that an acceptable initial Contractor's List or requested revised Contractor's List is not submitted to the Engineer at the time that force account calculations are begun, the Engineer will develop an Engineer's "Project Labor List" (Engineer's List) unilaterally, utilizing the best data available, that will be used until an initial Contractor's List is submitted and accepted, or requested revised Contractor's List is submitted and accepted. Calculations prepared using the Engineer's List will not be revised as a result of differences with an initial, or requested revised, accepted Contractor's List that is not timely submitted.

The hourly rates established in the current accepted "Project Labor List" shall be applied to the hours of work recorded by the Engineer. The hours of work shall include all hours that are contractual obligations of the Contractor or are customary payments by the Contractor to all employees.

In addition to compensation for direct labor costs defined above, the Owner will pay the Contractor 29 percent of the sum of the costs calculated for labor reimbursement to cover project overhead, general company overhead, profit, bonding, insurance, Business & Occupation tax, and any other costs incurred.

1-09.6(3) MATERIALS

The Owner will reimburse invoice cost for Contractor-supplied "Materials". For the purpose of Section 1-09.6(3), "Materials" shall be Materials and Supplies as defined in Section 1-01.3 of the Standard Specifications. This cost shall include freight and handling charges and applicable taxes. Before force account Work is started, the Engineer may require the Contractor to obtain multiple quotations for the "Materials" to be utilized and the Engineer may select the Materialperson with prices and terms most advantageous to the Owner.

The Engineer will provide a list of the types and quantities of Contractor-supplied "Materials" witnessed by the Engineer as being utilized in force account Work. This list will be furnished promptly after the "Material" is incorporated or used, on a daily basis unless another time frame is mutually agreed upon. The Contractor may propose corrections to this list, shall provide prices for the "Materials" and other costs, and shall return the list to the Engineer. To support the prices and other costs, the Contractor shall attach valid copies of Materialperson invoices. If invoices are not available for "Materials" from the Contractor's stocks, the Contractor shall certify actual costs (at a reasonable level) by affidavit. The Engineer will review the prices and other costs, and any Contractor-proposed corrections and, if reasonable, approve the completed list. Once approved, the prices will be utilized in the calculation of force account reimbursement for "Materials".

If, in the case of non-invoiced "Materials" supported by Contractor affidavit, the price appears to be unreasonable, the Engineer will determine the cost for all or part of those "Materials", utilizing the best data available.

The Owner reserves the right to provide "Materials". In this case, the Contractor will receive no payment for any costs, overhead, or profit arising from the value of the "Materials" themselves. Additional costs to handle and place Owner furnished "Material" shall be compensated as described in Section 1-09.6.

In addition to compensation for direct "Materials" cost, the Owner will pay the Contractor 21 percent of the sum of the costs calculated for "Materials" reimbursement to cover project overhead, general company overhead, profit, bonding, insurance, Business & Occupation tax, and any other costs incurred.

1-09.6(4) EQUIPMENT

The Owner will reimburse the Contractor for the cost of equipment utilized in the force account Work. The Equipment provided by the Contractor shall be of modern design and in good working condition. For the purpose of Section 1-09.6(4), "provided" shall mean that the equipment is owned (either through outright ownership or through a long-term lease) and operated by the Contractor or Subcontractor, or that the Equipment is rented and operated by the Contractor or Subcontractor. Equipment that is rented with operator shall not be included here, but shall be considered a service and addressed in accordance with Section 1-09.6(5).

The amount of payment for any Contractor-owned Equipment that is utilized shall be determined according to the version of the AGC/WSDOT Equipment Rental Agreement which is in effect at the time the force account Work is authorized. The rates listed in the Rental Rate Blue Book (as modified by the current AGC/WSDOT Equipment Rental Agreement) shall be full compensation for all fuel, oil, lubrication, ordinary repairs, maintenance, and all other costs incidental to furnishing and operating the equipment except labor for operation.

Payment for rented equipment will be made on the basis of a valid invoice, covering the time period of the force account Work. Before this Work is started, the Engineer may require the Contractor to obtain multiple quotations for the rental of equipment to be utilized and the Engineer may select the Materialperson with prices and terms most advantageous to the Owner.

In addition to the payments for Contractor-owned and rented equipment, one or more lump sum payments may be made for small tools. The amount to be paid shall be determined as outlined in the AGC/WSDOT Equipment Rental Agreement.

Regardless of whether the equipment is rented or owned by the Contractor or a Subcontractor of any tier, the Owner will add a single 21 percent to equipment costs to cover project overhead, general company overhead, profit, bonding, insurance, Business & Occupation tax, and any other costs incurred. This markup will be over and above those equipment costs and will not be adjusted for any equipment overhead amounts included in the Blue Book rates.

Current copies of the Rental Rate Blue Book and the AGC/WSDOT Equipment Rental Agreement will be maintained by the Engineer, and are also available for inspection at each of the offices of the Associated General Contractors of America (in Seattle, Spokane, Tacoma, and Wilsonville, Oregon).

1-09.6(5) SERVICES

Compensation under force account for specialized services shall be made on the basis of an invoice from the providing entity. A "specialized service" shall be one which is typically billed through invoice in standard industry practice. Before force account Work is started, the Engineer may require the Contractor to obtain multiple quotations for the specialized service to be provided and the Engineer may select the provider with prices and terms most advantageous to the Owner.

Except as noted in the paragraph immediately below, the Owner will pay the Contractor an additional one-time 21 percent of the sum of the costs included on invoices for specialized services to cover project overhead, general company overhead, profit, bonding, insurance, Business & Occupation tax, and any other costs incurred.

When a provider of specialized services is compensated through invoice, but acts in the manner of a Subcontractor as described in Section 1-09.6(7), then markup for that invoice shall be in accordance with Section 1-09.6(7).

1-09.6(6) FORCE ACCOUNT MOBILIZATION

Force account mobilization is defined as the preparatory Work performed by the Contractor including procurement, loading and transportation of tools and equipment, and personal travel time (when such travel time is a contractual obligation of the Contractor or a customary payment for the Contractor to all employees). Mobilization also includes the costs incurred

during demobilization. Pro-rata adjustments may be made when the mobilization applies to both force account and other Contract Work. The Owner will pay for mobilization for off-site preparatory Work for force account items provided that notice has been provided sufficiently in advance, as determined by the Engineer, to allow the Engineer to witness the off-site preparatory Work, if desired.

Any costs experienced during mobilization activities for labor, equipment, Materials, Supplies, or services shall be listed in those Sections of the force account summary and paid accordingly.

1-09.6(7) CONTRACTOR MARKUP ON SUBCONTRACTOR'S WORK

When Work is performed on a force account basis by one or more approved Subcontractors, by a lower-tier Subcontractor or Materialperson, or through invoice by firm(s) acting in the manner of a Subcontractor, the Contractor will be allowed an additional markup, from the following table, applied to the costs computed for Work done by each Subcontractor in Sections 1-09.6(2) through and including 1-09.6(5), to compensate for all administrative costs, including project overhead, general company overhead, profit, bonding, insurance, Business & Occupation tax, and any other costs incurred.

A firm may be considered to be acting as a Subcontractor when the Engineer observes one or more of the following characteristics:

1. The person in charge of the firm's activities takes an active role in managing the overall project, including extensive coordination, interpretation of Drawings, interaction with the Owner or Engineer, or management of a complex and inter-related operation.
2. Rented equipment is provided fueled, operated and maintained by the firm. Operators of rented equipment are supervised directly by the firm's representative. There is little interaction between the Contractor and the employees of the firm.
3. The firm appears to be holding the risk of performance and quality of the work.
4. The firm appears to be responsible for liability arising from the work.

Markups on amounts paid for work performed by each Subcontractor on each force account and calculated through Sections 1-09.6(2) to and including 1-09.6(5):

On amounts up to \$25,000	12%
On amounts equal to or greater than \$25,000 up to \$100,000	10%
On amounts equal to or greater than \$100,000	7%

The amounts and markup rates shall be calculated separately for each Subcontractor on each force account item established.

The payments provided above shall be full payment for all Work done on a force account basis. The calculated payment shall cover all expenses of every nature, kind, and description, including those listed above and any others incurred on the Work being paid through force account. Nothing in Section 1-09.6 shall preclude the Contractor from seeking an extension of time or time-related damages to unchanged Work arising as a result of the force account Work. The amount and cost of any Work to be paid by force account shall be computed by the Engineer, and the result shall be final as provided in Section 1-05.1.

A Bid item which has been Bid at a Bid item price in the Bid will not be paid as force account unless a change as defined in Section 1-04.4 has occurred and the Specifications require a payment adjustment. Bid items which are included in the Bid Form as force account or which are added by Change Order as force account may, by agreement of the parties at any time, be converted to agreed Bid item unit prices or Bid item lump sum prices applicable to the remaining Work.

1-09.7 PAYMENT FOR MOBILIZATION

Mobilization consists of preconstruction expenses and the costs of preparatory Work and operations performed by the Contractor that occur before 10 percent of the Awarded Contract Price is earned from Contract Bid items other than mobilization not including payment for Material on hand.

Based on the Bid item lump sum price for "Mobilization", progress estimates will be made as follows:

1. When 5 percent of the Awarded Contract Price is earned from Contract Bid items other than mobilization excluding amounts paid for Materials on hand, 50 percent of the amount Bid for mobilization, or 5 percent of the Awarded Contract Price other than mobilization, whichever is the least, will be paid.
2. When 10 percent of the Awarded Contract Price is earned from Contract Bid items other than mobilization excluding amounts paid for Materials on hand, 100 percent of the amount Bid for mobilization, or 10 percent of the Awarded Contract Price other than mobilization, whichever is the least, will be paid.
3. When the Physical Completion Date has been established for the Project, all remaining amount in the mobilization Bid item will be paid.

1-09.8 PAYMENT FOR MATERIAL ON HAND

Progress estimates, to a maximum of 90% of the invoiced cost of Materials excluding taxes, or the Bid item price, whichever is less, may be made for Materials not yet incorporated into the Work if the Materials:

1. Meet the requirements of the Contract based upon inspections or testing by the Engineer;
2. Are delivered to Project Site or are stockpiled at a storage facility not on the Project Site;
3. Are properly stored and protected; and

4. Are insured against loss or damage.

In addition to the requirements above, Material delivered to the Project Site or to a storage facility not on the Project Site as permitted in item 2 above, will be considered for progress estimate only if the following additional conditions are met:

The storage of Materials is required for more than 30 Days, and
 The Material is segregated from materials for any other project, and
 The Material is tagged, labeled, or otherwise identified as belonging to the project, and
 All costs associated with transportation of Material to the Project Site or other provisions acceptable to the Engineer made with regard to eventual delivery to the Project Site, are at the sole expense of the Contractor and shall be considered as included in the Bid item price.

The cost of Materials on hand will be determined by invoices from a Materialperson in sufficient detail to determine the actual cost. The Contractor shall furnish the Engineer an invoice for the Material marked "paid" within sixty (60) -Days of the progress payment by the Owner for that Material on hand. If the paid invoice is not furnished within the prescribed time, and the Material has not been incorporated in the Work, a payment that has been made for that Material will be deducted from the next progress estimate and the Material will not be eligible for future payment as Material on hand.

Requests for payment for individual items or group of items of Material on hand, amounting to an invoice total of less than \$2000 will not be considered by the Engineer in the progress estimate for payment. Payment for sales taxes due on the purchase of such Material or equipment will not be made unless said taxes were paid by the Contractor to the Materialperson or fabricator for transmittal to the State by the Materialperson or fabricator and such tax is included on the invoice issued by the Materialperson.

Payment for Materials will not constitute acceptance. Unacceptable Material will be rejected even though payment may have been made for such Material in a progress estimate.

Deductions at the same rates and equal in amount to the payment for Material on hand will be made to future progress estimates as Material is incorporated into the Work and paid at the Bid item unit price, or for a Bid item lump sum price, the progress estimates percentage of the Bid item lump sum price. Deductions, at the same rates and equal in amount to the payment for Material on hand, will also be made for Material on hand which is rejected after a payment was made.

1-09.9 PAYMENTS

1-09.9(1) PROGRESS ESTIMATES

Payments for completed Work and Material on hand will be based upon progress estimates prepared by the Engineer and signed by the Contractor. A progress estimate cutoff date will be established at the preconstruction meeting.

Within three (3) Days after the progress estimate cutoff date (but not more often than once a month), the Contractor shall submit to the Engineer for review, an Application for Payment. The Application for Payment, filled out and signed by the Contractor, shall cover the Work completed for the payment period prior to the progress estimate cutoff date. Application for Payments that include Force Account Work shall be accompanied by documentation supporting the claim for payment.

Payment requested for Materials and equipment on hand shall be in accordance with Section 1-09.8. The initial progress estimate will be made not later than thirty (30) Days after the Contractor commences the Work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the Work are tentative, and made only for the purpose of determining progress payment. The progress estimates are subject to change at any time prior to the calculation of the final payment.

The value of the progress estimate will be the sum of the following:

1. **Unit Price Bid Items in the Bid Form:** The approximate quantity of Bid item units of Work completed multiplied by the Bid item unit price.
2. **Lump Sum Bid Items in the Bid Form:** The estimated percentage of each lump sum Bid item completed multiplied by the Bid item lump sum price.
3. **Materials on Hand:** To a maximum of ninety percent (90%) of invoiced cost of Material delivered to the Project Site or other storage area pursuant to Section 1-09.8.
4. **Change Orders:** Entitlement for approved extra cost or completed extra work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Five percent (5%) for retained percentage.
2. The amount of progress payments previously made.
3. Funds withheld by the Owner for disbursement in accordance with the Contract.

Progress payments for Work performed shall not be evidence of acceptable performance or an admission by the Engineer that any Work has been satisfactorily completed.

Payments will be made by warrants, issued by the Owner's fiscal officer, against the appropriate fund source for the project.

Payments received by the Contractor on account of Work performed by a Subcontractor are subject to the requirements of RCW 39.04.250.

1-09.9(2) RETAINAGE

Pursuant to Chapter 60.28 RCW there will be reserved and retained from monies earned by the Contractor on progress estimates during the progress of the Work, a sum not to exceed five percent (5%) of the monies earned by the Contractor. Such retainage shall be used as a trust fund for the protection and payment of:

1. Claims by the State with respect to taxes imposed pursuant to Title 82 RCW that may be due from such Contractor; and
2. The claims of any person or persons, mechanic, Subcontractor or Materialperson who shall perform any labor under such Contract or the doing of said Work, and all persons who shall supply such person or persons or Subcontractors with provisions or Supplies for carrying on such Work.

Monies reserved under provisions of Chapter 60.28 RCW shall, at the option of the Contractor, be:

1. Retained in a non-interest-bearing fund by the Owner; or
2. Deposited by the Owner in an interest bearing account in a bank, mutual savings bank, or savings and loan association. Interest on moneys reserved by the Owner under the provisions of a public improvement contract shall be paid to the Contractor; or
3. Placed in escrow with a bank or trust company by the Owner. When the monies reserved are to be placed in escrow the Owner will issue a check representing the sum of the monies reserved payable to the bank or trust company and the Contractor jointly. Such check shall be converted into bonds and securities chosen by the Contractor and approved by the Owner and the bonds and securities held in escrow. Interest on the bonds and securities may be paid to the Contractor as the interest accrues.

Retainage will not be reduced for any reason below the minimum limit provided by law.

The Contractor shall designate the option desired on the Agreement Form at the time the Contractor executes the Contract with the Owner. The option selected shall be considered part of the Contract. If the Contractor chooses option 2 or 3, the Contractor shall assume full responsibility to pay all costs that may accrue from escrow services, brokerage charges or both, and further assumes all risks in connection with the investment of the retained percentages in securities.

Release of retained percentage will be made sixty (60) Days following the Completion Date pursuant to the provisions of Chapters 39.12 RCW, 39.76 RCW, and 60.28 RCW provided the following conditions are met:

1. On Contracts totaling more than \$20,000.00, a release has been obtained from the Washington State Department of Revenue (RCW 60.28.051).
2. No claims, as provided by law, have been filed against the retained percentage (RCW 60.28.021).
3. Affidavit of Wages Paid is on file with PCSD for the Contractor, each Subcontractor regardless of tier, and for any other individual or firm covered under Chapter 39.12 RCW.

In the event one or more claims are filed, the Contractor will be paid such retained percentage less an amount sufficient to pay such claims together with a sum determined by the Engineer sufficient to pay the cost of foreclosing on claims and to cover attorney's fees.

Pursuant to Sections 1-07.9(5) and 1-07.18(9) the Contractor is responsible for submitting to the State Department of Labor & Industries a "Request for Release" form in order for the Owner to obtain a release from that department with respect to the payments of industrial insurance medical aid premiums. The Owner will ensure the Washington State Employment Security Department and City of Seattle Finance Division of the Department of Executive Administration are notified of Contract completion in order to obtain releases from those departments.

1-09.9(3) OWNER'S RIGHT TO WITHHOLD AND DISBURSE CERTAIN AMOUNTS

In addition to moneys retained pursuant to RCW Ch. 60.28 and subject to RCW 39.04.250, RCW Ch. 39.12, and RCW Ch. 39.76, the Contractor authorizes the Owner or Engineer to withhold progress payments due or deduct an amount from any payment or payments due the Contractor that, in the Owner's or Engineer's opinion, may be necessary to cover the Owner's costs for or to remedy the following situations:

1. Damage to another contractor when there is evidence thereof and a claim has been filed;
2. Where the Contractor has not paid fees or charges to public authorities or municipalities that the Contractor is obligated to pay;
3. Utilizing material, tested and inspected by the Engineer, for purposes not connected with the Work (Section 1-05.6);
4. Landscape damage assessments per Section 1-07.16;
5. For overtime work performed by City personnel per Section 1-08.1(5);
6. Anticipated or actual failure of the Contractor to complete the Work on time:
 - a. Per Section 1-08.8 Time Extensions and Delays – Entitlement and Compensation; or
 - b. Lack of construction progress based upon the Engineer's review of the Contractor's approved progress schedule that indicates the Work will not be completed within the Contract Time. When calculating an anticipated time overrun, the Engineer will make allowances for weather delays, approved unavoidable delays, and suspensions of the Work. The amount withheld under this subparagraph will be based upon the Liquidated Damages amount per Day set forth in Contract multiplied by the number of Days the Contractor's approved progress schedule, in the opinion of the Engineer, indicates the Contract may exceed the Contract Time.
7. Failure of the Contractor to perform any of the Contractor's other obligations under the Contract, including but not limited to:
 - a. Failure of the Contractor to provide the Engineer with a field office when required by the Contract.
 - b. Failure of the Contractor to protect survey stakes, markers, etc., or to provide adequate survey work as required by Section 1-05.5.
 - c. Failure of the Contractor to correct defective or unauthorized Work (Section 1-05.8).
 - d. Failure of the Contractor to furnish a Manufacturer's Certificate of Compliance in lieu of Material testing and inspection as required by Section 1-06.3.

- e Failure to submit weekly payrolls, Intent to Pay Prevailing Wage forms, or correct underpayment to employees of the Contractor or Subcontractor of any tier as required by Section 1-07.9.
- f Failure of the Contractor to pay worker's benefits (Title 50 and Title 51 RCW) as required by Section 1-07.18(9).
- g Failure of the Contractor to submit and obtain approval of, and revise as required, a progress schedule per Section 1-08.3.
- h Failure to meet Non discrimination requirements as required in Section 1-07.11.
- i Failure of the Contractor to comply with the outcome of mediation as provided for in Section 1-09.14 for the resolution of payment disputes. In this instance, the withholding of funds shall be consistent with the terms of the mediation settlement, including any cost of the mediation.
- j Failure of the Contractor to timely comply with submittal requirements, including providing the Engineer with updates to the submittal control document (Section 1-05.3).

The Contractor authorizes the Owner or Engineer to act as agent for the Contractor disbursing such funds as have been withheld pursuant to this section to a party or parties who are entitled to payment. Disbursement of such funds, if the Owner or Engineer elects to do so, will be made only after giving the Contractor fifteen (15) calendar Days prior written notice of the Owner's intent to do so, and if prior to the expiration of the fifteen (15) -calendar Day period:

- 1) no legal action has commenced to resolve the validity of the claims, and
- 2) the Contractor has not protested such disbursement.

A proper accounting of all funds disbursed on behalf of the Contractor in accordance with this section will be made. A payment made pursuant to this section shall be considered as payment made under the terms and conditions of the Contract. The Owner shall not be liable to the Contractor for such payment made in good faith.

If legal action is instituted to determine the validity of the claims prior to expiration of the fifteen (15) Day period mentioned above, the Owner or Engineer will hold the funds until determination of the action or written settlement agreement of the parties.

1-09.9(4) FINAL PAYMENT

Upon issuance of the Certificate of Completion by the Owner the Final Contract Price will be calculated based upon a final progress estimate made by the Engineer. Acceptance by the Contractor of the final payment shall be and shall operate as a release to the Owner from the Contractor:

- 1) All claims and all liabilities of the Owner, other than claims in stated amounts which have been asserted pursuant to the Dispute and Claim Resolution process as described in Section 1-4.5:
- 2) For all things done or furnished in connection with the Work;
- 3) For every act and neglect by the Owner; and
- 4) For all other claims and liability relating to or arising out of the Work.

A payment (monthly, final, retainage, or otherwise) shall not:

- 1) Release the Contractor or the Contractor's Surety from any obligation required under the terms of the Contract or the Contract Bond; or
- 2) Preclude the Owner from recovering damages, setting penalties, or obtaining such other remedies as may be permitted by law.

Before the establishment of the Completion date by the Owner, the Contractor shall satisfy the final Contracts reporting requirements of Section 1-08.1(3).

1-09.10 RESERVED

1-09.11 RESERVED

1-09.12 AUDITS

1-09.12(1) GENERAL

The Contractor's wage, payroll, and cost records on this Contract shall be open to inspection or audit by representatives of the Owner during the life of the Contract and for a period of not less than three years after the Completion Date. The Contractor shall retain these records for that period. If requested, the Contractor shall promptly furnish copies of these records to the Owner. The Contractor shall also guarantee that the wage, payroll, and cost records of all Subcontractors, regardless of tier, be retained and open to similar inspection or audit for the same period of time.

The audit may be performed by employees of the Owner or by an auditor under contract with the Owner. The Contractor and Subcontractors of any tier shall provide adequate facilities, acceptable to the Owner, for the audit during normal business hours and shall make a good faith effort to cooperate with the auditors.

If an audit is to be commenced more than sixty (60) calendar Days after the Completion Date, the Contractor will be given 20 Calendar Days Written Notice of the time when the audit is to begin. If any litigation, claim, or audit arising out of, in connection with, or related to this Contract is initiated, the wage, payroll, and cost records shall be retained until such litigation, claim, or audit involving the records is completed.

1-09.12(2) CLAIMS

All claims, and documentation for mediation, filed against the Owner shall be subject to audit at any time following the filing of the claim or request for mediation as applicable. Failure of the Contractor or, if applicable, a Subcontractor of any tier to maintain and retain sufficient records to allow the auditors to verify all or a portion of the claim, and documentation for mediation when applicable, or to permit the auditor access to the books and records of the Contractor, Subcontractor of any tier, or their agents shall constitute a waiver of a claim and shall bar any recovery thereunder.

The Contractor shall make available all documents requested by the auditors including, but not limited to, the following documents:

1. Daily time sheets and supervisor's daily reports.
2. Union agreements.
3. Insurance, welfare, and benefits record.
4. Payroll registers.
5. Earnings records.
6. Payroll tax forms.
7. Material invoices and requisitions.
8. Material cost distribution worksheet.
9. Equipment records (list of company equipment, rates, etc.).
10. Vendors, rental agencies, Subcontractors, and agents invoices.
11. Subcontractor agreements and, pursuant to Section 1-07.12, payment certifications (including those of 2nd and lower tier Subcontractors when applicable).
12. Cancelled checks (payroll and Vendors).
13. Job cost report.
14. Job payroll ledger.
15. General ledger.
16. Cash disbursements journal.
17. Financial statements for all years that reflect the operations on this Contract. In addition, City auditors may require, if it deems appropriate, additional financial statements for 3 years preceding execution of the Contract, and for 3 years following the Completion Date.
18. Depreciation records on all company equipment whether these records are maintained by the company involved, its accountant, or others.
19. If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents.
20. All documents that relate to each and every claim together with all documents that support the amount of damages as to each claim.
21. Worksheets or software used to prepare the claim establishing the cost components for items of the claim including but not limited to labor, benefits and insurance; materials, equipment, Subcontractors; all documents which establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals; and home office overhead.
22. Worksheets, software, and all other documents used by the Contractor to prepare its Bid.

1-09.13 RESERVED**1-09.14 PROMPT PAYMENT TO SUBCONTRACTORS AND MATERIAL PERSONS****1-09.14(1) GENERAL**

The purpose of this Section is to provide an additional mechanism for Subcontractors and Materialpersons (collectively referred to in this Section as "Subcontractors") to be paid promptly by the Contractor, for work satisfactorily completed, after the Contractor has received payment from the Owner. It is not the Owner's intent to monitor and enforce contractual obligations between the Contractor and Subcontractors, or to require any additional documentation to be submitted to the Owner to implement the provisions of this Section. Nothing in this Section shall be construed to negate the rights or importance of Subcontractors filing a claim against the bond or retainage in accordance with the provisions of State law in order to protect their legal rights.

1-09.14(2) PROGRESS PAYMENTS

Within ten (10) Working Days of receipt of a progress payment from the Owner that include dollars for work performed by a Subcontractor, the Contractor shall pay such Subcontractor, less any applicable retainage, out of such amounts as are paid by the Owner, for all work satisfactorily completed by the Subcontractor, provided that the Subcontractor has complied with the applicable terms of its subcontract with the Contractor. If the Contractor fails or neglects to make such payment within ten (10) Working Days, the Contractor shall pay to the Subcontractor interest computed at one percent per month on amounts due for the period beginning on the Day after the required payment date and ending on the Day on which payment of the amount due is made.

1-09.14(3) UNSATISFACTORY PERFORMANCE BY SUBCONTRACTOR

If the Contractor determines that the Subcontractor did not satisfactorily perform all or a portion of the work identified in the progress payment, the Contractor shall, consistent with RCW 39.76.011, provide written notification to the Subcontractor and Owner of the remedial actions that must be taken by the Subcontractor as soon as practicable after determining the cause for withholding payment to the Subcontractor, but before the due date for the Subcontractor payment. The Contractor shall pay the Subcontractor within eight (8) Working Days after the Subcontractor satisfactorily completes the remedial action

identified in the written notice. If the Contractor does not comply with the remedial action notice and payment requirements of this Section, the Contractor shall pay the Subcontractor interest on the withheld amount from the eighth Working Day at an interest rate that is equal to the amount set forth in RCW 39.76.011(1) until payment is made.

1-09.14(4) RETAINAGE PAYMENT

The following procedure shall apply to all subcontracts entered into as a part of this Contract:

Requirements: The Subcontractor shall make a written request to the Contractor for the release of the Subcontractor's retainage or retainage bond.

Within ten (10) Working Days of the request, the Contractor shall determine if the subcontract has been satisfactorily completed and shall inform the Subcontractor, in writing, of the Contractor's determination.

If the Contractor determines that the subcontract has been satisfactorily completed, the Subcontractor's retainage or retainage bond shall be released by the Contractor within ten (10) Working Days from the date of the written notice.

If the Contractor determines that the Subcontractor has not achieved satisfactory completion of the subcontract, the Contractor must provide the subcontractor with written notice, stating specifically why the subcontract work is not satisfactorily completed and what has to be done to achieve completion. The Contractor shall release the Subcontractor's retainage or retainage bond within eight (8) Working Days after the Subcontractor has satisfactorily completed the work identified in the notice.

In determining whether satisfactory completion has been achieved, the Contractor may require the Subcontractor to provide documentation such as certifications and releases, showing that all laborers, lower-tiered Subcontractors, suppliers of material and equipment, and others involved in the Subcontractor's work have been paid in full. The Contractor may also require any documentation from the Subcontractor that is required by the subcontract or by the Contract between the Contractor and Owner or by law such as affidavits of wages paid, material acceptance certifications and releases from applicable governmental agencies to the extent that they relate to the Subcontractor's work.

If the Contractor fails to comply with the requirements of the Specification and the Subcontractor's retainage or retainage bond is wrongfully withheld, the Subcontractor may seek recovery against the Contractor under applicable prompt pay statutes in addition to any other remedies provided for by the subcontract or by law.

Conditions: This clause does not create a contractual relationship between the Owner and any Subcontractor as stated in Section 1-08.1. Also, it is not intended to bestow upon any Subcontractor, the status of a third-party beneficiary to the Contract between the Owner and the Contractor.

This section of the Contract does not apply to retainage withheld by the Owner from monies earned by the Contractor. The Owner shall continue to process the release of that retainage based upon the Completion Date of the project as defined in 1-08.5 Time for Completion and in accordance with the requirements and procedures set forth in Chapter 60.28 RCW.

1-09.14(5) INCORPORATION OF PROVISIONS

The Contractor shall include either specifically in each of its subcontracts a provision setting forth the payment and interest penalty clause of this paragraph, 1-09.14, or in each of its subcontracts a provision incorporating by reference all the terms of its contract with the Owner. In addition, the Contractor shall require its Subcontractors to include such a payment and interest penalty clause in each of their subcontracts and to require each of their Subcontractors to include such clauses in their subcontracts with each lower tier Subcontractor, either specifically or by reference.

1-09.14(6) OTHER SUBCONTRACT PAYMENT PROVISIONS

Any subcontract agreement, at any tier, with provisions for Subcontractor payment sooner than those specified in this Section, or interest payments greater than those specified in this Section, shall take precedence over the provisions of this Section.

1-09.14(7) MEDIATION TO RESOLVE PAYMENT DISPUTES

If a Contractor fails to pay a Subcontractor as required by this Section, a Subcontractor may require that the dispute be submitted to mediation for resolution. Upon request, the Engineer shall provide a Subcontractor with a list of potential mediators to contact.

SECTION 1-10 TEMPORARY TRAFFIC CONTROL

1-10.1 GENERAL

Installation and maintenance of temporary traffic control for pedestrian and vehicular traffic within the public Right of Way shall be performed in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) as supplemented by the current edition of The City of Seattle "Traffic Control Manual for In-Street Work" (hereinafter referred to as the "Seattle Traffic Control Manual") and such additional requirements as may be included in the Contract. The "Manual on Uniform Traffic Control Devices for Streets and Highways" may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402. The City of Seattle "Traffic Control Manual for In-Street Work" may be obtained from the office of the SDOT, at 206-684-5086.

The Contractor shall:

1. Provide flaggers, signs, and other traffic control devices not otherwise specified as being furnished by the Engineer.

2. Not work on or adjacent to any Traveled Way until all necessary signs and traffic control devices are in place.
3. Unless the section of street is to be completely closed to vehicular traffic, schedule and plan the Work to permit:
 - a. The maximum number of traffic lanes normally available to be opened in the direction of the heaviest flow of traffic during the peak hours.
 - b. Maintain 2-way traffic at all times except on "one-way" streets. Additional width for facilitating traffic flow may be obtained by requesting on-street parking to be prohibited adjacent to the Work area.
 - c. Maintain traffic on a paved surface whenever possible. In the event that a graveled or dirt surface must be used as a detour, maintain a smooth surface and control dust.
 - d. Clean up spillage from trucks on the pedestrian or driving surface adjacent to the work area. See Sections 1-07.5 and 1-07.23.
 - e. Provide safe and protected pedestrian ways. See Section 1-07.23.
 - f. Not park or place construction equipment to create an unnecessary sight distance or other safety obstruction to vehicular or pedestrian traffic.
 - g. Maintain work area traffic control devices in a proper condition on an "around the clock" basis whether or not work is actively being pursued. In addition, the Contractor shall assure that tools and equipment are properly stored and excavation bridging is secure and adequately covering excavation.
4. Erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage resulting from the Contractor's operations.
5. Be liable for injuries and damages to persons and property suffered by reason of the Contractor's operations or any negligence in connection therewith.
6. Construct, maintain in a safe condition, keep open to traffic, and remove when no longer needed detours and temporary approaches that will accommodate traffic diverted from the roadway, walkway or bridge during construction. On-site or off-site detours required or necessitated by the Work, including side street crossings, temporary bridges, utilization of one or more lanes of the construction area for maintenance of through traffic, and related traffic control shall be the responsibility of the Contractor.

1-10.2 TRAFFIC CONTROL MANAGEMENT

1-10.2(1) GENERAL

All projects in street areas will be inspected with regard to type and placement of pedestrian and vehicular traffic control devices. Traffic control devices not meeting the requirements of the Seattle Traffic Control Manual shall be considered non-standard. Non-standard traffic control devices shall not be used unless specifically approved for use, in writing, by the Engineer.

The Contractor shall patrol the traffic control area as often as necessary, but at least daily, and reset all disturbed signs and traffic control devices. Signs and other traffic control devices shall be removed or covered during periods when they are not necessary.

Before beginning Work, the Contractor shall designate an individual or individuals to perform the duties of Traffic Control Manager (TCM) and Traffic Control Supervisor (TCS). These individuals shall be in charge of and responsible for traffic control. A TCM and TCS are required on all Projects that require traffic control. The TCM can also perform the duties of the TCS. The Contractor shall identify no more than six alternate employees that can assume the duties of the assigned or primary TCM and TCS in case of the primary person's inability to perform. Such alternates shall be trained and certified to the same degree as the primary TCM and TCS.

The Contractor shall maintain 24-hour telephone numbers at which the TCM and TCS can be contacted and be available upon the Engineer's request at other than normal working hours. The TCM and TCS shall have the appropriate personnel, Equipment, and material available at all times to correct any deficiency in the traffic control system. The Engineer will furnish the Contractor a similar list of the Engineer's employees and their telephone numbers.

1-10.2(2) TRAFFIC CONTROL MANAGER (TCM)

The duties of the TCM shall include:

1. Discussing proposed traffic control measures and coordinating implementation of the Contractor-adopted traffic control plan(s) with the Engineer.
2. Coordinating all traffic control operations, including those of Subcontractor, Materialperson, and any adjacent construction or maintenance operations.
3. Coordinating the project's activities (such as ramp closures, road closures, and lane closures) with appropriate police, fire control agencies, city or county engineering, medical emergency agencies, school districts, disposal companies, and transit companies (for METROKC transit and Benson Line Waterfront Trolley, see Sections 1-07.23(1) and 1-07.28, item 2).
4. Overseeing all requirements of the Contract that contribute to the convenience, safety, and orderly movement of vehicular and pedestrian traffic.
5. Having the latest adopted edition of the Seattle Traffic Control Manual and applicable standards and Contract available at all times on the project.
6. Attending all project meetings where traffic management is discussed.
7. Review TCS's diaries daily and be responsible for knowing "field" traffic control operations.

1-10.2(3) TRAFFIC CONTROL SUPERVISOR (TCS)

A TCS shall be on the project whenever traffic control labor is required or as authorized by the Engineer.

The TCS shall personally perform all the duties of the TCS. During non-work periods, the TCS shall be able to be on the Project Site within a 45-minute period after notification by the Engineer.

The TCS's duties shall include:

1. Inspecting traffic control devices and nighttime lighting for proper location, installation, message, cleanliness, and effect on the traveling public. Traffic control devices shall be inspected each work shift except that Class A signs and nighttime lighting need to be checked only once a week. Traffic control devices left in place for 24 hours or more should also be inspected once during the non-working hours when they are initially set up (during daylight or darkness, whichever is opposite of the working hours).
2. Preparing a daily traffic control diary, which shall be submitted to the Engineer no later than the end of the next Working Day to become a part of the project records. The Contractor may use WSDOT Forms 421-040A and 421-040B or the Contractor's own form if it is approved by the Engineer. The TCS shall include in the diary such items as:
 - a. When signs and traffic control devices are installed and removed,
 - b. Location and condition of signs and traffic control devices,
 - c. Revisions to the traffic control plan,
 - d. Lighting utilized at night, and
 - e. Observations of traffic conditions.
3. Ensuring that corrections are made if traffic control devices are not functioning as required. The TCS may make minor revisions to the traffic control plan to accommodate site conditions as long as the original intent of the traffic control plan is maintained and the revision has concurrence of the Engineer.
4. Attending traffic control coordinating meetings or coordination activities as authorized by the Engineer.

The TCS may perform the Work described by the Bid item for "Maintenance and Protection of Traffic Control" as long as the duties of the TCS are accomplished. Possession of a current flagging card by the TCS is mandatory.

A reflective vest and a hard hat shall be worn by the TCS.

1-10.2(4) CONTRACTOR'S REFUSAL OR FAILURE TO ACT

Upon failure or refusal of the Contractor to comply with the Engineer's written notice to:

1. Provide adequate flaggers,
2. Provide, erect, maintain, and remove, as applicable, barricades, signs, lights, on-site or off-site detours or detour bridges, or
3. Provide any work required by Section 1-07.23,

the Engineer shall have the option to do one or any combination of the following:

1. Suspend the Work without further notice to the Contractor or the Contractor's Surety until the Contractor complies with the Engineer's order (see Section 1-08.6),
2. Immediately provide an off-duty uniformed peace officer at no additional cost to the Owner, or
3. Provide, erect, maintain and remove barricades, signs and lights at no additional cost to the Owner by Owner forces or by others, and
4. Deduct all costs related to items 1, 2, and 3 from any progress payments due or coming due the Contractor as provided in Section 1-09.9(3).

The above options shall not bar the Owner from exercising other remedies because of the Contractor's failure or refusal to comply with a contractual obligation.

1-10.2(5) TRAFFIC CONTROL PLANS**1-10.2(5)A CONTENT AND SUBMITTAL REQUIREMENTS**

Based on the Contractor's intended method of performing the Work, the Contractor shall develop, adopt, and submit to the Engineer a specific traffic control plan or plans for protecting and controlling pedestrian and vehicle traffic during construction operations. A separate traffic control plan is required for each work location within the street Right of Way. Typical plans may be submitted for areas with identical traffic requirements. Typical plans shall be clearly labeled to indicate all locations the plan is to represent. Traffic control plans shall take into consideration any street and lane closure or other restrictions that may be specified in the Contract.

Submittal shall be made at least ten (10) Working Days before planned implementation to allow for Engineer evaluation of the proposed vehicular and pedestrian routing, flagging, and placement of signing and other traffic control devices. The Contractor shall not begin Work in the street Right of Way until an approved Traffic Control Plan for the specific location has been returned by the Engineer. Submittal shall be in accordance with Section 1-05.3 except no more than two reproductions will be required for any Traffic Control Plan Shop Drawing size.

Traffic Control Plans shall indicate:

1. Vehicular and pedestrian traffic routing,
2. Proposed location of flaggers, barricades, lighting, signing, and other traffic control devices in relation to existing and temporary roadway edges and lane markings,
3. Proposed number of working hours,
4. Arrangements for access to buildings within and immediately adjacent to Project Site,

5. Arrangements for emergency exiting from buildings within and immediately adjacent to the Project Site,
6. Anticipated driveway blockage resulting from construction operations,
7. Restrictions to on-street parking within immediate vicinity of the Project Site, including arrangements for hooding parking meters, and parking pay stations and associated appurtenances, as necessary,
8. Arrangements for temporary passenger and commercial loading and unloading zones, and temporary bus stop zones,
9. Identification and description of temporary lateral relocations of trolley overhead wire system if necessary to maintain trolley service,
10. Routing of construction trucks,
11. Coordination in sequencing traffic control with scheduling of Work and work locations, and
12. Sequencing and layout of temporary pavement marking and removal as it relates with the scheduling of Work and work locations.

When the signing of a particular area will be provided as detailed on one or more of the figures included in the Seattle Traffic Control Manual without modification, the Contractor may reference the applicable figure number, shown in the manual, at the appropriate location on the Drawings. When this procedure is used, variable distances such as minimum length of taper shall be specified by the Contractor. The spacing proposed for barricades and cones shall also be specified.

If the Contractor's proposed pedestrian or traffic control measures differ from the traffic control requirements in the Seattle Traffic Control Manual, the Contractor's alternate Traffic Control Plan shall detail the specific location of each necessary construction sign, flagging, and other traffic control device required. The Contractor's alternate method for traffic and pedestrian control shall be developed in accordance with the same established standards for plan development demonstrated by the figures in the Seattle Traffic Control Manual. Acceptance of alternative traffic control measures shall be entirely at the discretion of the Engineer. The Contractor shall have no claim for an equitable adjustment:

- 1) For using alternative measures.
- 2) If the proposed alternate measures are rejected or modified.
- 3) If requests to use non-standard traffic control devices are rejected or modified.

The Contractor shall plan and schedule Contractor work activities to conform to and allow time for notifications, reviews, approvals, acceptances, and other conditions of the Contract. Most notifications are located in Section 1-07.28.

1-10.2(5)B CONFORMANCE TO ESTABLISHED STANDARDS

The condition of signs and traffic control devices shall be new or "acceptable" as defined in the book Quality Standards for Work Zone Traffic Control Devices, and will be accepted based on a visual inspection by the Engineer. The Engineer's decision on the condition of a sign or traffic control device shall be final. When a sign or traffic control device becomes classified as "unacceptable" it shall be removed from the project and replaced within 12 hours.

The book, Quality Standards for Work Zone Traffic Control Devices, is available by writing to the American Traffic Safety Service Association, 5440 Jefferson Davis Highway, Fredericksburg, VA 22407, at (540) 898-5400, and Fax (540) 898-5510.

Requests to use non-standard traffic control devices shall be submitted with the Traffic Control Plans or by submitting a modification to the traffic control plan.

1-10.2(5)C TRAFFIC CONTROL RESTRICTIONS

In addition to any street and lane closure restrictions specified in the Contract, traffic control plans shall be developed to comply with the following restrictions:

1. **Arterial Paving:** Arterial approaches to the streets being paved shall remain open to vehicular traffic for their full roadway widths except when paving across arterial crossings. During such periods, the cross streets may be closed for a minimum amount of time as approved by the Engineer. Prior to the closure of any arterial cross street the Contractor shall submit to the Engineer a traffic control plan for the location detailing the traffic controls to be used to reroute traffic. Traffic shall not be rerouted without approval of the traffic control plan by the Engineer. The Contractor shall have no claim because of the traffic control plan being rejected or modified by the Engineer.
2. **Time of Work:** Except as may be otherwise itemized in the street and lane closure restrictions specified in the Project Manual, no Work shall be scheduled in the Traveled Way on arterials during "peak traffic hours" without written authorization from the Engineer. Unless otherwise specified, "peak traffic hours" are from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM with the following exceptions:
 - a. For the Central Business District peak hours are from 6:00 AM to 9:00 AM and 3:00 PM to 6:00 PM.
 - b. For Aurora Avenue peak hours are from 6:00 AM to 9:00 AM and 3:00 PM to 7:00 PM.

The Contractor shall discontinue Work if conflict exists with special events such as parades, sporting events, miscellaneous rallies, and large public meetings or with seasonal conditions, such as Christmas. Information concerning such events can usually be obtained from 206-684-5098.

No construction activities will be allowed on any portion of a project that lies within the Central Business District or the Pioneer Square area during the Christmas season, Thanksgiving Day through New Year's Day inclusive.

The Central Business District is that area within the boundaries of Interstate 5 on the east, Seneca Street on the south, 1st Avenue on the west, Virginia Street and Denny Way (east of Fairview Avenue) on the north.

The Pioneer Square Area is that area within the boundaries of Alaskan Way on the west, 2nd Avenue and 2nd Avenue South on the east, Columbia Street on the north and King Street on the south.

3. **Parking:** Where parking restricts traffic flow or is a hazard to through traffic or to the construction work, parking may be restricted either entirely or during the time when it creates a hazard. Parking restrictions may be requested by the Contractor and upon approval of the Engineer be established within construction and maintenance areas. In areas where parking meters are present, the Contractor shall apply to SDOT for installation of meter covers restricting such parking. In areas with parking pay stations and sidewalk containing **D-22 signage** ("Pay R", Pay L, "Pay H", and "Pay RL" signs and posts), and "numbered" base plates, the Contractor shall apply to SDOT for "no parking markers" restricting such parking. Where no meters, parking pay stations, and D-22 signage and "numbered" base plates are present, the Contractor shall contact SDOT so that the Contractor may install "NO PARKING" (T-39) easel signs. Signs must be inspected by a parking enforcement officer or uniformed peace officer 24 hours prior to enforcement. See Section 1-07.28, item 1 for notification requirements.

"NO PARKING" signs shall conform in message, dimension and color as indicated in Part V of the "Seattle Traffic Control Manual". Spacing of signs shall be in accordance with Project Site conditions.

"NO PARKING" (T-39) easel signs should be installed at an approximate interval of 50 feet to 75 feet, with a minimum of four units, per each full block. For partial block parking prohibition, R-101's or T-39's should be installed at approximately 50-foot intervals with R-160 signs at the terminus as shown in Figure V-1 of the "Seattle Traffic Control Manual".

The employees of the Contractor shall not park their private vehicles on the street, at the Project Site, or in commercial areas where general parking has been prohibited for construction or safety purposes.

1-10.3 FLAGGING, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES

1-10.3(1) FLAGGING

1-10.3(1)A GENERAL

Flaggers shall have a current certification (flagging card) from the State Department of Labor and Industries (WAC 296-155-305), except where the flagging job requires a uniformed off-duty peace officer. The Contractor shall furnish all personnel for flagging and for the setup and removal of all temporary traffic control devices and construction signs necessary to control traffic during construction operations. Prior to performing any traffic control Work on the Project Site, these personnel should be trained with the video, "Safety in the Work Zone" produced jointly by WSDOT and Laborers' International Union of North America. The video is available from WSDOT's Engineering Publications Office, Transportation Building.

Pursuant to WAC 296-155-305, flaggers and spotters shall possess a current flagging card issued by the State of Washington Department of Labor and Industries. Current flagging cards from Oregon and Idaho are also acceptable. The flagging card shall be immediately available and shown to the Engineer upon request.

Workers engaged in flagging or traffic control shall wear reflective vests and hard hats. During hours of darkness, white coveralls or white or yellow rain gear shall also be worn. The vests and other apparel shall be in conformance with Section 1-10.3(1)C. During hours of darkness flagger stations shall be illuminated to ensure that flaggers can easily be seen without causing glare to the traveling public. The Contractor shall furnish the MUTCD standard Stop/Slow paddles (18 inches wide, letters 6 inches high, and reflectorized) for the flagging operations.

1-10.3(1)B TRAFFIC CONTROL LABOR (PEACE OFFICERS)

Only an off-duty uniformed peace officer shall be used as a flagger to:

1. Countermand a traffic signal indication at a signalized intersection, and
2. Direct vehicle and pedestrian traffic when a traffic signal indication is turned off or inoperative.

Officers are also required for new traffic signal Work, see Section 8-31.3(1)A. The off-duty uniformed peace officer shall be provided by the Contractor.

The Contractor shall **submit** to the Engineer on the next Working Day, a copy of the daily time card for the off-duty uniformed peace officer showing the hours actually worked countermanding a signal at a signalized intersection and the hours actually worked directing vehicular and pedestrian traffic at a signalized intersection when the traffic signal is inoperative or turned off.

1-10.3(1)C HIGH VISIBILITY APPAREL AND EQUIPMENT

The Contractor shall furnish for the use of flaggers, reflective vests and hard hats for the flagging and control of traffic. This equipment shall be used by the flaggers while actually flagging traffic. The Contractor shall also provide any such equipment used that is necessary or desirable to protect personnel engaged in other activities.

The Contractor shall require all personnel at the Work site under their control (including Subcontractors and lower tier Subcontractors) to comply with the following:

1. To wear reflective vests, except that during daylight hours, orange clothing equivalent to "Ten Mile Cloth" or hunter orange may be worn in lieu of reflective vests,
2. To wear white coveralls at night,
3. Whenever rain gear is worn during hours of darkness, it shall be white or yellow, and
4. The reflective vests shall always be the outermost garment.

Exceptions to the above requirements are:

- a. When personnel are out of view of or not exposed to traffic.
- b. When personnel are inside a vehicle.
- c. Where it is obvious that such apparel is not needed for the employee's safety from traffic.

Reflective vests shall have a minimum of 100 square inches of reflective surface distributed 30 percent on the front and 70 percent on the back. The retro-reflection value at an entrance angle of -4 degrees and an observation angle of 0.2 degrees shall be a minimum 500 candle power for the reflective surface of the vest. Reflective vests, hard hats, white coveralls, rain gear, and other apparel shall be furnished and maintained in a neat, clean, and presentable condition at no additional cost to the Owner.

1-10.3(2) TRAFFIC CONTROL VEHICLES

The traffic control vehicle shall be equipped with a roof or post-mount flashing amber light visible for 360 degrees. Truck and construction equipment that encroach onto the traveled roadway for any reason shall also be equipped with flashing yellow warning lights. Unless one or more flaggers are present to control traffic, supplementary traffic control devices shall be placed to warn, slow down, and if necessary divert traffic around such equipment.

1-10.3(3) CONSTRUCTION SIGNS

1-10.3(3)A GENERAL

The Contractor shall furnish, install and maintain all traffic control signs required by the Contract or a Contractor's approved traffic control plan. These include:

1. Temporary traffic control signs referenced in the Seattle Traffic Control Manual.
2. Any permanent signs located in the construction area that are temporarily relocated, damaged or destroyed by the Contractor or a third party prior to the Physical Completion Date.

When all or some of the necessary signs or traffic control devices are to be furnished by the Engineer, it will be so specified in the Contract.

The Contractor shall:

1. Provide the posts or supports.
2. Erect and maintain the signs in a clean, neat, and presentable condition until the Engineer approves their removal.
3. Take these signs, posts, or supports down when the need for these signs has ceased. All posts and supports shall be removed from the project and shall remain the property of the Contractor.
4. Remove all non-applicable signs, or completely cover with metal or plywood, during periods when they are not needed.
5. Return to the Engineer in good condition any Engineer-furnished signs. All such signs lost, stolen, damaged, or destroyed shall be replaced by the Contractor in kind at the Contractor's expense or their value will be deducted from the Contractor's payments.

All control signs necessary for nighttime traffic control shall be fully reflectorized.

Existing traffic control and street name signs that interfere with construction shall be relocated or removed by the Contractor and temporarily stored in a safe place. All "STOP", "YIELD", and "ONE-WAY" signs shall be removed or relocated only upon approval of the Engineer (See Section 8-21.3(4) Sign Relocation). Existing signs shall not be removed until the Contractor has provided temporary measures sufficient to safeguard and direct traffic after the existing signs have been removed. Except as otherwise provided in the Contract, preservation and maintenance of traffic control and street name signs shall be the sole responsibility of the Contractor.

As Work progresses and as conditions permit, temporarily relocated or removed traffic and street name signs shall be reset in their permanent location by the Contractor (see 500 and 600 series applicable Standard Plans regarding sign and post installation). Signs and other traffic control devices damaged or lost by the Contractor shall be replaced or repaired by the Contractor at no additional cost to the Owner. The option whether a sign can be repaired or shall be replaced shall be the Engineer's, and such decision shall be final and binding on the Contractor.

Traffic control signs, other than parking prohibition signs, which are required to be installed ahead of construction activities, shall be installed immediately before the construction activity begins. The Contractor may elect, as a matter of convenience in advance of the scheduled construction activity, to install and effectively cover the signs until the construction activity begins. See Section 8-21.3(3) Sign Covering.

Construction signs shall be divided into two classes – Class A and Class B. In case of disputes, the Engineer will determine if a construction sign is considered as a Class A or B construction sign.

When Class A or B construction signs are required, the Work to provide these signs shall be:

- 1) Furnishing, removing, and disposing of the posts or supports for the signs.
- 2) Initial acquisition from the Engineer and ultimate return to the Engineer of the required Engineer-furnished signs.
- 3) Initial installation and subsequent removal of both Class A and B construction signs.
- 4) All other incidentals necessary for providing Class A or B construction signs according to the approved traffic control plan(s).

1-10.3(3)B CLASS A SIGNS

Class A construction signs shall be installed where shown in the Contract. Class A construction signs are those signs that remain in service throughout the construction or during a major phase of the Work. They are mounted on posts, existing

fixed Structures, or substantial supports of a semi-permanent nature. Sign and support installation for Class A signs shall be in accordance with the Contract Drawings or the Standard Plans.

1-10.3(3)C CLASS B SIGNS

Class B construction signs are those signs that are placed and removed daily, or are used for short durations that may extend for one or more Days. They are mounted on portable or temporary mountings. If it is necessary to add weight to the signs for stability, only a bag of sand that will rupture on impact shall be used. The bag of sand shall:

1. Be furnished by the Contractor.
2. Have a maximum weight of 40 pounds.
3. Be suspended no more than 1 foot from the ground.

No separate Bid item will be provided in the Bid Form for Class B construction signs. Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which the Engineer deems to be unacceptable, while their use is required on the project, shall be replaced by the Contractor at no additional cost to the Owner.

For special sign requirements for new traffic signals, see Section 8-31.3(1)A.

Sign materials shall conform with the requirements of Section 9-28.

Signs used during the hours of darkness shall be properly reflectorized (see Section 9-28) except for parking and pedestrian prohibition signs. Paint impregnated with glass beads shall not be used. Where reflectorization is rendered ineffective due to extraneous light sources, the sign shall be illuminated either externally or internally. Where external illumination is used, the source shall be properly shielded to reduce glare. Street or highway lighting shall not be considered adequate for illuminating signs. All reflectorized or illuminated signs should be checked by the Contractor during the hours of darkness to insure that they are functioning properly.

Signs shall be constructed from material that will not deteriorate abnormally under normal weather conditions. Sign blanks shall be weatherproof plywood or non-corrosive metal (see Section 9-28). Roll-up signs fabricated from vinyl-coated nylon or vinyl-coated nylon mesh may also be used. Only reflectorized signs shall be used at night.

1-10.3(4) TEMPORARY TRAFFIC CONTROL DEVICES

1-10.3(4)A GENERAL

Traffic control devices shall be installed so that they are readily visible to approaching traffic. Traffic control devices shall be placed such that they allow the driver to see from one device to the next and are in the same position on successive Days unless changes in construction Work dictate otherwise.

1-10.3(4)B HIGH LEVEL WARNING DEVICE

A "High Level Warning Device" shall be required for each separate Work area in the roadway, except when an arrow panel or board is used with the taper area. Device materials and usage shall conform to the Seattle Traffic Control Manual. A high level warning device shall be installed for all temporary Work, except when an arrow panel or board is used in the roadway and as a supplement to warning signs. Depending on the situation, high level flags may be attached to a service vehicle or placed directly on the roadway in advance of the obstruction. The device shall be placed in the middle of the closed lane and shall always be placed behind appropriate channeling devices. Normally, one unit should be used for each lane closed; however, additional units may be used if appropriate. A high level warning device should always be the first traffic control equipment to be placed as it will provide a degree of protection during the positioning of other devices.

1-10.3(4)C PAINT LINES AND LEGENDS

When paint lines are obliterated due to construction activities or pavement restoration, temporary pressure-sensitive pavement marking tape, traffic buttons, temporary lane markers, or delineators shall be installed where designated by the Engineer. These temporary features shall be removed only upon installation of permanent traffic channelization.

Temporary centerline striping shall consist of placing strips of pressure sensitive pavement marking tape at 10 to 15 foot intervals along the centerline. Temporary marking tape shall be placed in sets of two 12-inch strips of yellow 4-inch wide marking tape set 4 inches apart and parallel to the center line with each set of 1-foot double line spaced 10 to 15 feet along the center line of the roadway, or the equivalent surface area in temporary lane markers (TLMs).

Temporary stop bars shall consist of a 12-inch wide stop bar made up of three parallel 4-inch strips of temporary pavement marking tape placed at locations designated by the Engineer. All other temporary pavement markings utilizing pavement-marking tape shall be designated by the Engineer.

Pressure-sensitive pavement marking tape used on the wearing course prior to installation of permanent lane markers, traffic buttons, or permanent paint striping shall be removed from the pavement current with, or immediately subsequent to, the installation of permanent pavement markings.

Temporary pavement markings shall be maintained in serviceable condition by the Contractor for the duration of time it is in use. Layout and marking in preparation for application and the application and removal of the temporary striping shall be the Contractor's responsibility. The Engineer will do the layout for permanent lane markings as specified in Section 8-22.3(1).

Temporary pavement marking tape shall meet the requirements of Section 9-29.4.

Damage to the pavement resulting from removal of temporary pavement marking, including the use of high heat sources, shall be repaired by the Contractor at no expense to the Owner.

1-10.3(4)D BARRICADES AND CHANNELIZING DEVICES

The Contractor shall place and maintain necessary barricades, vertical barricades, drums, cones or other channeling devices as are needed to warn and alert drivers and pedestrians on or near the Traveled Way or construction area, and to guide and direct them safely past the construction area.

1-10.3(4)E LIGHTING DEVICES

Roadway and pedestrian illumination systems shall be maintained in operation for all traveled ways open to traffic. See Section 8-30.3(1).

Barricades or drums used at night shall be equipped with approved yellow warning lights. The Contractor shall keep existing traffic signal systems and pedestrian and street lighting systems in operation for the benefit and safety of the traveling public during progress of the Work, unless otherwise directed by the Engineer. The Owner will continue the routine maintenance of traffic signal, pedestrian and street lighting systems. The Contractor shall be responsible for replacing missing or damaged signs and posts.

1-10.3(4)F SPEED AND PARKING CONTROL

In those areas where construction operations have changed road conditions, such additional hazards as reduced lane width, open trenches, temporary roadway, etc., may be considered as evidence of need for an alteration of the legal (or posted) speed limit. Requests for alteration of the legal speed limits on City streets must be submitted to the Engineer. Costs related to speed limit revisions and parking control shall be borne by the Contractor and at no additional cost to the Owner.

1-10.3(5) CONSTRUCTION AND MAINTENANCE OF DETOURS

Unless otherwise approved, the Contractor shall maintain two-way traffic during construction. The Contractor shall build, maintain in a safe condition, keep open to traffic, and remove when no longer needed:

1. Detours and detour bridges that will accommodate traffic diverted from the roadway or bridge during construction;
2. Detour crossings of intersecting streets; and
3. Temporary approaches.

All on-site or off-site detours required or necessitated by the Work, including side street crossings, temporary bridges over freshly placed concrete, utilization of one or more lanes of the construction area for maintenance of through traffic, and related traffic control shall be the responsibility of the Contractor.

Any detour proposed by the Contractor shall not be built until the Engineer approves. Surfacing and paving shall be consistent with traffic requirements.

1-10.4 MEASUREMENT

Measurement for "Maintenance and Protection of Traffic Control including Flagging, Min. Bid = \$_____" will be by the lump sum.

Measurement for "Traffic Control Labor" will be by the hour and will be made for the actual hours worked by a uniformed off-duty peace officer as specified in Section 1-10.3(1)B. No measurement will be made for standby time, show-up time, and all other time not in accordance with Section 1-10.3(1)B.

Measurement for "Construction Signs Class A" will be by the square foot on one face of panel area. No measurement will be made for reuse of a Class A construction sign in a new location, relocation of a sign to a new location, or for posts or supports.

Class B construction signs will not be measured.

1-10.5 PAYMENT

Compensation for the cost necessary to complete the work described in Section 1-10 will be made at the Bid item prices Bid only for the Bid items listed or referenced below:

1. **"Maintenance and Protection of Traffic Control including Flagging, Min. Bid = \$_____"** per lump sum.

Payment for "Maintenance and Protection of Traffic Control including Flagging, Min. Bid = \$_____" shall include all costs for the Work required to control traffic as specified in Section 1-10 not including traffic control labor and construction sign Class A. To prevent unbalanced Bids, the Bid item lump sum price Bid for "Maintenance and Protection of Traffic Control including Flagging, Min. Bid = \$_____" shall not be less than the Bid item lump sum minimum price noted in the Bid Form. Should the Contractor determine that the cost for this Work is greater than the Bid item lump sum minimum price listed in the Bid Form, the Contractor may bid a higher lump sum price by crossing out the Bid item lump sum minimum price and extension shown in the Bid Form, writing in a higher Bid item lump sum price and extension in the Bid Form, and initialing the change. Bids received on this Contract which contain a cost for "Maintenance and Protection of Traffic Control including Flagging, Min. Bid = \$_____" of less than the Bid item lump sum minimum price shown in the Bid Form will be revised to reflect the Bid item lump sum minimum price allowed including the extension and shall govern as becoming a part of the Bid.

2. **"Traffic Control Labor"**, per hour.

Payment for "Traffic Control Labor" shall include all costs for the Work specified in Section 1-10.3(1)B.

3. **"Construction Signs Class A"**, per square foot.

Payment for "Construction Signs Class A" shall include all costs for the Work required to fabricate and to obtain and deliver as applicable, construction signs Class A including installation, relocation, removing, providing supports and posts,

maintaining the signs in a condition acceptable to the Engineer, and refinishing disturbed earth to a condition acceptable to the Engineer.

4. **Other payment information.**

When the Contractor's employees are called out to provide emergency traffic protection during non-working hours, payment for labor, equipment, and Materials deemed necessary by the Engineer will be made in accordance with Section 1-09.4.